THE TIMES
Higher Education
SUPPLEMENT

Civil research budget 'loses out to defence'

by Robin McKie
Science Correspondent

Britain's civil research budget has been a victim of our increased spending on defence. This is revealed in official Common Market figures which show that total expenditure on British research and development has been more or less static since 1970.

"It appears that reduced expenditure into civil research has been compensated for by defence research", states the report.

Only three countries spend more than 10 per cent of their research budgets on defence: Britain with an incredible 47 per cent which is the same as the United States, and then France and Germany, although expenditure in these two countries is on the decrease.

This compares with Denmark where "an exceptionally high proportion" of research allocations went on the promotion of general knowledge and only a small share on defence. Similarly in Holland, research for general knowledge was the most important criterion.

By these standards, British comparies badly. A figure of 50 per cent of total research was spent on defence in 1977, while the promotion of knowledge received only 23 per cent. Only France spent more last year on defence than on any other civil research area. Its figuers were 29 per cent on defence and 26 per cent on general knowledge.

The EEC figures cover a period going back to 1970. During that time Britain's average annual increase in total research expenditure was 2.7 per cent and this compared with the general European figures of 3.2 per cent. But UK civil research rose only 0.7 per cent. In Europe it reached 3.4 per cent.

These figures are given in a recent issue of *Eurojorum*, published by the European Commision, which in turn took its figures from *Government Financing of Research and Development 1970-77*, published by the Community's statistical office.

The article in *Eurojorum* is entitled "Seven Good Years of Euro research" and concludes that the period represented years of plenty. However, it points out that the 3.2 per cent increase a year on total research budgets in Europe represented only an average figure.

"Behind it lies a period of rapid growth in the first years and a wide gap between expenditure in individual countries. While both Ireland and Germany rapidly increased research expenditure, little change was evident in Italy and France."

Court challenge on academic freedom

from Paul McGill

DUBLIN

An important test case on academic freedom opened last week in the High Court in Dublin. Two academics who left the priesthood, Dr P. L. McGrath and Mr Malachy O'Rourke, are challenging the powers of the trustees of Maynooth College to dismiss them from their teaching posts.

Maynooth is both a recognized college of the National University of Ireland and the country's main seminary for the Catholic priesthood. Although it receives about £1m per year from public funds, the trustees, who govern the secular university as well as the seminary, consist entirely of Catholic bishops.

Early last year, the two staff received letters of dismissal from the trustees, but they claim that the resolutions dismissing them were unreasonable, invalid and incompatible with the status of Maynooth. They plead too that the principles of natural and constitutional justice have been violated and that they are being subject to invidious discrimination.

Mr Donal Barrington, senior counsel for the two men, quoted the former president of the college as saying that there was no question about the professional competence or teaching capacity of the two lecturers. The decision was taken to dismiss the two men and then the charges were preferred, Mr Barrington said.

Although Dr McGrath, formerly professor of logic, and Mr O'Rourke, a lecturer in the French department, have not received written explanations of their dismissal, these have been variously stated as a failure to wear clerical garb, living outside the college campus and writings prejudicial to the teaching authority of the Church.

Mr O'Rourke gave evidence that when he applied to the late Cardinal Conway for laicization, the Cardinal, who was chairman of the trustees, told him it would not be possible for him to remain at Maynooth. Mr Barrington claimed that the Cardinal's notes of the interview made it clear that he believed a laicized priest was not a fit person to hold a secular position in the college.

He contended that it was not a requirement of office that they should be priests.

The trustees have not yet called witnesses, but in their pleadings they say that the power to govern the college is vested in them, including the power to make statutes and to appoint and direct all who hold office there. These statutes were complied with and were valid and constitutional, including provision that the only [illegible] against dismissal is to the [illegible] in Rome, in line with [illegible] they submitted that there [illegible] legal basis for inviting the [illegible] Court to consider the matter.

The Irish Federation of University Teachers is supporting its dismissed lecturers. Last year it called a one-day strike at Maynooth to draw attention to the lack of academic basis for the decision, launched an appeal for funds to support the two men.

The case also raises the issue of public accountability. Substantial sums of public money are paid annually to the college and are earmarked for secular education, since the Irish Constitution prohibits the endowment of religion from public funds – there is no public participation in the running of Maynooth.

A working party set up by previous government recommended that Maynooth should become an independent university along with the colleges in Cork, Dublin and Galway. If the High Court decides that the bishops have the power to hire and fire staff in a secular university, opponents of such independence is likely to gather strength from academics and others.

Poly directors call for inquiry to redraw boundaries

by Peter David

A national inquiry to plan the future of higher education and redraw the boundaries between universities, polytechnics and colleges is called for today by the Committee of Directors of Polytechnics.

The inquiry should be on the scale of the Robbins investigation in the 1960s and should review all post-school education, the directors say. A key task will be to replace the present binary system with a three-part scheme where the polytechnics and technological universities would be given a similar role and the colleges and traditional universities treated separately.

Arguing that neither the universities nor the polytechnics are a homogenous group of institutions the CDP says that polytechnics have more in common with the technological universities than with colleges on their own side of the binary line. By the late 1980s, it predicts, some universities and polytechnics will be "scarcely distinguishable".

The call for an inquiry comes in a detailed CDP response to the DES discussion paper on the future of higher education. In it the directors produce "an alternative scenario" to the DES projection of a rise in student numbers followed by a sharp decline. "Appropriate nurturing" of the 16 to 19 age group, combined with the impact of comprehensive schools, could open higher education to the full range of social classes, they say.

Nevertheless, the paper argues, the "present essentially narrowly selective" concept of higher education cannot continue and courses must be made more "customer orientated" to accommodate increasing numbers of mature students and women. The polytechnics already attract a large proportion of mature students, the directors claim.

Calling for careful planning of future student numbers and the balance between institutions, the CDP says that the problems faced by the university sector would be eased if its intake target was not allowed to increase beyond the 1981 level of 310,000.

"This should give some five years before some minor scale trimming or any change in their subject balance and approach became necessary. In essence, the university sector would have a five-year breathing space to adjust to either a slowly diminishing scale or a gradually changing role."

While the university intake is held constant under the CDP plan, however, the polytechnics would be allowed to increase their student numbers from a 1981 level of 150,000 to a 1984 target of 165,000. In 1994, the CDP reckons, numbers in universities could decline to 290,000 and in the polytechnics to 160,000.



One of the photographs in an Arts Council exhibition of the work of Frank Meadow Sutcliffe (1853-1941) at the University of East Anglia library until June 25.

Mr McColgan objects

Mr Michael McColgan, the Sheffield University lecturer threatened with dismissal, is objecting to the composition of a new committee appointed to make recommendations about his future. The committee is to be elected by members of the university to hear evidence from Mr McColgan and the faculty of arts, which proceed that he be sacked for lack of research.

But Mr McColgan is objecting to the conduct of the election and to the nominations of the vice-chancellor, Professor Geoffrey Stephenson, circulated in writing to all members of senate before nominations closed. He has not decided whether to cooperate with the committee.

The committee, which is to be chaired by Professor John Hudson, an expert in industrial relations, is due to meet informally next week and is expected to report at the final meeting of the senate before the academic session. A university spokesman said no time limit had been set on the investigation, which would take place in the presence of Mr McColgan and his legal adviser. Only the final recommendation would be discussed in private.

Pay 16-18 age group grants straight to student—NUS

by John O'Leary

Grants should be available for students taking any course which keeps them in full-time education for two years beyond the statutory school leaving age, the National Union of Students urged today. The NUS welcomed the Government's commitment in principle to a new system of grants for the 16 to 18 age group.

In a submission to Mrs Williams, Secretary of State for Education, the union accepts the need for such payments to be means tested and suggests the scale used to award free school meals as the most appropriate one for this purpose.

Grants should be paid direct to the student, rather than to parents, and the absolute minimum payment should be worth not less than supplementary benefit, after taking into account child benefit allowances. Ideally, the NUS would like grants comparable to those made by the Manpower Services Commission and received by degree level students.

The NUS submission firmly favours designation of the age group to receive grants, rather than choosing specific courses or making grants discretionary, which is viewed with "total horror". The students want a flexible system, allowing for movement between the vocational and academic spheres.

While recognizing that there would be a danger that public money could be abused by students who have no intention of completing their studies, the NUS believes that this can be minimized by the authorities. Grants should still be paid to students themselves because the independence which they are expected to provide would be lost if students had to rely on handouts from parents.

Dr Keith Hampson, vice-chairman of the Conservative Education Committee, said he expected grants to be paid to parents and that the way logical. However, in a speech to the Association of College Vice-Principals, he attacked the detail and philosophy behind Mrs Williams's proposals.

Young people were to be bribed to stay on at school, he said, but often they were leaving because they had "had their belly full of school anyway". First priority should be given to sorting out the further education "discretionary grants mess" and then a crash programme in literacy and numeracy should be launched.

Dr Hampson said the Think Tank could give an objective assessment of the prospects for an integrated and intelligible system to replace the present combination of grants and social security payments, and should be asked to report within 10 months.

Lecturers pay erosion talks open

Discussions have begun between university authorities and lecturers on the vexed question of the erosion of pay since 1975.

At the same time the Association of University Teachers and the University Authorities' panel are considering ways of passing the lecturers' annual pay claim to the Government it has agreed to [illegible] in two stages, starting in October.

NEXT WEEK

The performing lecturer.
Higher education numbers in the 1990s.
RSC's Coriolanus reviewed.
The University College at Buckingham.
A survey of student finance.
Maggie Richards visits Hillcroft adult education college for women.
Kenneth Morgan on the letters.

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SRHE seeks probe working party

A working party to examine the feasibility of establishing a major independent inquiry into the future pattern of higher education was being proposed to council members of the Society for Research into Higher Education today.

The proposal was being put forward by Professor Gareth Williams, chairman of the group, and follows a conference on the Department of Education and Science consultative document *Higher Education into the 1990s*, held by the SRHE earlier this month.

In a summary of the conference Professor Roy Niblett, former chairman of the group, reported the overwhelming view that there should be a wide-ranging inquiry into the future of higher education similar to, but not on the same scale as, the Carnegie Commission in the United States.

AUT conference on future in Scotland

The Association of University Teachers in Scotland is preparing to organize a conference next year on the role and future of Scottish universities.

Participation in the conference will be wide-ranging and about half the people invited will represent the Government, industry and local authorities.

The aim is to examine critically the role of Scottish universities in the wider society. It is expected to be a three-day conference and will take place in the spring or autumn of next year.

The AUT in England and Wales has already held its own conference on the "Universities and Britain's Future", in association with *The Times Higher Education Supplement*.

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Oakes decision in melting pot as local authorities meet

by Peter David

Makeor-break negotiations on the Oakes report were launched in London yesterday when local authority representatives from every education committee in England met to decide whether to accept the report's proposals for reorganizing higher education in the public sector.

The education committees of the Association of Metropolitan Authorities and the Association of County Councils have both received papers from their expert advisers urging qualified acceptance of the Oakes recommendations.

But the metropolitan authorities are still not certain that the report will prove acceptable. There has been a rebirth of political control from Labour to Conservative since the Oakes deliberations and one of the AMA's five advisers has submitted a note of dissent urging rejection of the entire package.

The paper submitted to the AMA committee by its officers discloses that only three of the five advisers were prepared to say that Oakes provided "workmanlike and pragmatic" proposals to remedy "a demonstrably unsatisfactory situation".

A fourth had doubts and a fifth, an unnamed chief education officer, believed the report would create "an unnecessary new bureaucracy based on an uneasy and unworkable compromise which poses a threat to continued local government involvement in higher education".

He describes as "an unworthy device" the proposal for a direct contribution by local authorities of 15 per cent of the costs of their local polytechnics or colleges. He argues that if the existing pooling arrangements were discredited they could be replaced by an inter-authority scheme of recoupment payments on the lines proposed by the AMA early in the negotiations.

But the majority opinion in the advisers' document says that Oakes provides "the highest practicable common factor acceptable to all the interests involved". It warns that scope for renegotiating parts is limited and urges qualified acceptance.

Although the local authority associations were represented on the Oakes group, local government members made it clear at the time that they reserved the right to reject the report. Mr Malcolm Thornton who took over the chair of the AMA education committee yesterday as the result of Labour's defeats in the May local elections, was a member of the Oakes group.

Many of his colleagues, however, are unhappy about the detailed proposals for the national body on higher education and the new system of centralized finance. Considerable support remains for the association's original concept of a recoupment scheme.

The AMA advisers point to two serious reservations about the Oakes package. They estimate that in "a handful" of metropolitan authorities the 15 per cent direct contribution envisaged by Oakes could lead to rate increases of 5p. In such cases, they argue, polytechnics should not be turned over to the national body as suggested: "special arrangements" ought to be made to protect the authority.

A second objection, that Oakes does not contain adequate proposals for coordinating plans with the universities, is shared by the county councils.

Research adds new dimension to home TV

by Robin McKie
Science Correspondent

Imagine Magnus Pyke performing in three dimensions in your own home. Or Patrick Moore appearing in simulated living flesh inside your living room. Or even worse – Nicholas Parsons in glorious 3-D.

The thought is enough to produce a frisson of horror in even the most strongly disposed—but it could become fact because of research being carried out at Imperial College, London. The work is being undertaken by Dr Mike Forshaw, a researcher in the optics section, who is carrying out initial studies into establishing broadcast three-dimensional television.

He highlighted three separate areas of work—cameras, transmission, and properly constructed television sets. His approach incorporates holography—using lasers to produce 3-D images—as well as other sophisticated image processing techniques.

Dr Forshaw said the research on camera development had progressed successfully and he was now working on the problem of broadcasting three-dimensional pictures. This would have to overcome the difficulties of compressing far greater amounts of information, needed to create the pictures, into normal television frequency bands.

He had not yet started to consider the problems associated with the reproduction of such pictures but he understood those would have to be compatible to allow normal TV pictures to be screened. When showing 3-D pictures, the screens would act like windows, he added, with the perspective altering according to the viewer's position.

A great deal of research into perfecting three-dimensional television is being carried out in Russia, as well as in Japan and America.

Dainton after Butler

Dr Frederick Dainton, chairman of the University Grants Committee, is to be the next chancellor of Sheffield University. He succeeds Lord Butler, who resigned last year. The formal election will take place at the December meeting of court.



Parsons, Moore, Pyke—on your television in 3D?

NATFHE stands firm against post graduate teacher plans

by John O'Leary

Postgraduate courses to train half of all new teachers were condemned as inadequate this week in a policy statement by the National Association for Teachers in Further and Higher Education. A four-year education and training, followed by a year's induction, was said to be an absolute minimum requirement.

The statement was at variance with a number of aspects of Government policy, which favours a three-year undergraduate training or a one-year postgraduate certificate course. Other areas of disagreement concerned entry qualifications for teacher education students, and the continuing entry of untrained graduates into schools.

Mr Malcolm Lee, chairman of NATFHE's teacher education standing panel, said the association wanted stable system able to respond to changing circumstances in the schools. This could best be achieved by a four-year pattern incorporating a variety of course types, with the majority of teachers taking a course involving more than one year's professional training.

The association is worried by the growing proportion of new teachers, reaching 50 per cent in 1981, whose training is on postgraduate courses. It fears that a two-tier system will result, whereby the B Ed becomes the established route into primary and middle schools, while the postgraduate certificate is the normal qualification for senior schools.

The statement said: "The association believes that a four-year course normally including study for an honours degree is needed to provide the academic and professional education to equip a teacher and that a one-year course cannot fully meet this objective."

NATFHE is anxious that the eight colleges which have merged with universities should continue to offer teacher education at an undergraduate level, particularly since there is a suspicion that many university courses have been geared towards the disappearing selective schools. Any further development of postgraduate courses should take place in the public sector.

The decision to move towards an all-graduate teaching profession, phasing out the Certificate of Education from 1979, is welcomed in the document and there is support for safeguards to ensure that all teachers have reached a satisfactory standard in English and mathematics.

But the requirement of O levels or their equivalent, announced this week by Mrs Williams, Secretary of State for Education, is thought too strict on entry to teacher training.

Universities coy on senior staff salaries

The Association of University Teachers is considering legal action to force universities to divulge information about the salaries of their senior administrative staff.

Mr John Akker, the association's deputy general secretary, said this week that some half dozen universities had failed to reply to an AUT request for details of the grading structure of their senior staff.

They included Lancaster, Cardiff, Belfast and Surrey. Some were taking legal advice, but others had refused to disclose the information on the grounds that it would breach confidentiality.

"We are now considering bringing a test case under the Employment Protection Act 1975", Mr Akker said. "The code of practice established under that Act requires employers to provide certain information as long as it is not personally confidential and does not damage the interests of the institution."

He said the AUT wanted to know about the grading structure of university administrators to ensure that universities had a proper ratio of senior to junior staff. The association did not want details of the posts and salaries of individual administrators.

But Sir Charles Carter, vice-chancellor of Lancaster University, claimed that the form submitted by the AUT would enable details relating to individuals to be "deduced". He said that the code of practice enabled employers to refuse to disclose details relating to the circumstances of particular individuals. The university was taking legal advice before replying to the AUT.

Meanwhile details were disclosed this week of a confidential survey of university salaries carried out by Sir Charles last year. The vice chancellors of 18 universities were asked to disclose the salaries of their senior administrative staff.

Included in the survey were Bath, Bradford, Durham, East Anglia, Exeter, Hull, Kent, Leicester, Loughborough, Salford, Sussex, Warwick, York, Aberystwyth, Cardiff, Swansea, Dundee and St Andrews.

Sir Charles circulated the results of his survey in a private letter in January 1977. It showed that at that time one university had 10 administrators receiving salaries at the highest "grade four" level. (Currently the minimum grade four salary is £8,900 and the average £10,419.)

Another had seven administrators on grade four salaries; two universities had six; four had five; five had four and one university had only two.

Sir Charles's letter says that eight of the universities surveyed had a single top administrator under the vice-chancellor. Their salaries ranged at the time from £11,936 to £9,223.

Other letters associated with Sir Charles's survey disclose his own salary and that of Dr C. W. J. Bevan, principal of University College, Cardiff. In December 1976 Sir Charles earned £13,928, and Dr Bevan earned £11,550 in addition to receiving a free house and "various other emoluments".

Union seeks pay scales merger

The National Association of Teachers in Further and Higher Education has called for a special meeting of the Burnham salaries committee to ask for a merger of the grade one and grade two lecturers' scales. The new scale would have 17 salary points, starting at £3,192 and rising to £6,558.

Contents

Performing dons



The lecturer should approach his task as much as a performer as a teacher, argues Alec Ross, 11

Beloff's Buckingham
Ngaio Crequer reports on the progress made by the private University College at Buckingham, 8
Leader, 27

Science fiction
Robin McKie describes a polytechnic attempt to harness enthusiasm for SF to the benefit of teaching, 7

Sidney and Beatrice
Kenneth Morgan reviews the three recently published volumes of the letters of Sidney and Beatrice Webb, 13

Hillcroft
Maggie Richards visits Hillcroft adult college which has just decided not to admit men students, 7

Coriolanus
Andrew Gurr finds the RSC's new production "as carefully neutral as litmus paper", 10

Cuckoo in the nest
Robert Lowe describes the tensions between medical schools and their parent universities, 10

North American news	5
Overseas news	6
Books	13-15
Noticeboard	16
Classified index	17
Don's diary	26
Letters	27

حكذا في الأصل

Battlelines are now being drawn as submissions are made in response to the DES document

CVCP treats forecasting with caution

by Ngaio Crequer

More than a third of all universities have so far submitted responses to the DES discussion paper *Higher Education in the 1990s*.

The Committee of Vice-chancellors and Principals has made an interim response but is waiting for reaction from universities before publishing its final statement.

The committee is treating DES forecasting on demographic movements and the age participation rate with some caution.

Essentially the CVCP view seems to be that any slackening off in demand for places would be easily offset by satisfying needs elsewhere.

There is the growing desire to be involved with higher education by minority groups, part-timers, mature students, women and those from poorer backgrounds. And there is a feeling that now is the time to restore research opportunities, which have taken a battering over a number of years.

Universities rather begrudge the little space given in the document to the question of research, as though their only function was the training of first degree graduates.

The committee favours adherement to the Robbins principle that everybody suitably qualified and able to benefit from higher education should have the opportunity to take part. It is also keen to make the point that many of the areas in which the DES would seem to favour expansion, involve projects worth doing for their own sake, and which in some cases, are already being undertaken.

The committee feels that if secondary education becomes less specialized, and it does not regard this as inevitable, then four-year degree courses will become more preponderant. But it would probably resist attempts to introduce four-year courses, with the first year simply being a preliminary course necessary before the course proper began.

Expand paid educational leave

by Judith Judd

Legislation to give every citizen over 18 the right to a period of education or training is called for by the Association for Recurrent Education in its response to *Higher Education into the 1990s*.

The association also wants the Government to carry out a cost-benefit analysis of paid educational leave.

"We are confident that many ways of implementing PEL would give greater benefit than some of the hastily conceived schemes such as the recent job creation programme or some of the present Holland programmes."

In supporting the expansion of opportunity for mature and working class students envisaged in model E of the DES document, the association says that the cost of the scheme should be set against the possibility of reducing unemployment through PEL.

It proposes a system of grants for schoolleavers and other economically inactive groups, to be complemented by wage-related benefits for the employed. PEL, it adds, should not be viewed just in educational terms. It should cover recreational activities and training courses.

"We would regard a related credit transfer system as essential and do not rule out the possibility of a new form of award for this type of education which could serve as a qualifying function for entry to higher education."

The association points out that an increase in mature students without formal Robbins qualifications could require an expansion of "gateway-type" courses to equip students with study skills.

The introduction of PEL for all would also make necessary much more in-service training for adult qualifying function for entry to and college staff.

The association bases its views on the belief that education is a lifelong process. "We urge that every effort be made to avoid the limited thinking and sectional review which proved so expensive in the recent past and are epitomised by the briefs of many post-war educational reports—Crowther, Newsom, Robbins and, above all, Russell."

It accepts the assumptions about future population trends, but questions whether it would be either necessary or desirable for the proportion of 18-year-olds going on to higher education to remain at 14 per cent.

It believes that many further education students could proceed to higher education, especially if credit transfer were improved.

The association also questions the DES view that there is no evidence for an unsatisfied demand for part-time education.

"The evidence of the Open University admissions statistics indicates for example two applicants for every place, a demand that has been sustained over several years."

Lower age of independence to 21

The Government must take the lead in providing support for mature students and in changing the system of student awards, the Universities Council for Adult Education says in its response to *Higher Education in the 1990s*.

The council says the level of grants should take full account of the age and family responsibilities of the student. It also seeks provision for paid educational leave.

It calls on the Government to review urgently awards to part-time students and says the age at which students are considered independent of parents and spouses should be lowered to 21 for students who defer entry to higher education and mature students.

The council says there are strong reasons for adopting a solution based on model E as a long-term policy and not merely as a short-term expedient to use spare resources.

As a developed system of recurrent education in the universities cannot suddenly be brought into being, it believes that money should be spent in the 1980s in several ways.

Pilot projects should be undertaken, such as experimental part-time courses leading to first degrees or experimental short courses for mature students. In addition, a new structure of awards should provide support for full and part-time mature students.

Though the council endorses unequivocally the Robbins principle that higher education should be available for all qualified to pursue them, it wants the principle redefined. "We urge that ability and attainment should be redefined to take account of relevant experience and capacities as well as attainment through examinations."

If the resources of universities are to be used for what they are best equipped to provide, says the council, their shorter continuing education courses no less than their degree courses will be of a distinctive kind.

The council says that the fundamental changes in attitude and policy which will be needed if model E is to become a reality should not be underestimated. "Increased opportunities for continuing education in universities will not be matched by increased applications from potential students of different ages, unless the community as a whole alters its perception of the universities' role."

Base plans on revised Robbins lines

by John O'Leary

Plans for the future of higher education should be based on a revision of the Robbins principle, to make places available according to the individual needs and level of attainment of intending students, the Mature Students' Union says this week.

In its response to the discussion document *Higher Education into the 1990s*, the MSU claims that the Robbins principle of making places available for all those qualified by ability and attainment had produced an elite system. A change of emphasis would cause structural and ideological problems but they could and should be overcome.

Working class children, women, single parents, ethnic groups, adults and the mentally or physically handicapped are named as the groups which have been denied access to educational opportunities, despite the development of various schemes to meet sectional interests. The union says the discussion document should be used as an opportunity to plan a fully comprehensive system of continuing and further education to meet the needs of these groups.

Student numbers should be increasing now, the MSU submission contends, as worthwhile ends in their own right rather than being looked upon as the most likely available social group who can be "picked off the shelves for the duration to accommodate a short ineffective planning".

The union, which represents part-time adult students in the university sector, has identified areas where the needs of adult students are also not met and it foresees an increase in participation rate higher than the 40 per cent estimated by the Department of Education and Science. It argues that there is a trend towards positive discrimination in favour of women and ethnic groups in particular, and that this will help to bring educational expectancy

TEC announces new look for art and design courses

by Patricia Santinelli

Major proposals for the restructuring of further education art and design courses by 1980 were announced by the Technician Education Council this week.

The recommendations drawn up by the Council's committee for art and design (DATEC) will affect the studies of some 15,000 students in over 150 colleges outside the university and Council for National Academic Awards sectors.

These students will be studying for awards conforming to the existing TEC pattern of certificate, higher certificate, diploma and higher diploma to be obtained via any mode of study. Maximum credit will be given to students' previous educational attainment or work experience when this is relevant.

Commenting on the proposals, Mr David Carter, chairman of DATEC said that he had received great encouragement to see up a structure for vocational art and design which would be appropriate to its special needs.

"In particular, the council has been very anxious that the educational world should not feel that TES was attempting to impose every aspect of its established organization and philosophy on the art colleges. These, of course, have their own very well developed traditions and teaching methods."

The major validation procedure of the committee is to be carried out through four new area committees, covering graphic and visual communications; fashion, surface pattern and textiles; three more dimensional which includes interior design and general which takes in areas such as fine art studies.

In addition to this work the area committees will publish guidelines for colleges on course requirements and structures—some course criteria have already been set out—later this year and may produce standard material and develop common core studies where appropriate. Meanwhile the possible validation of existing schemes is likely to receive early consideration.



A plated ewer decorated with a nymph and flowers which is part of the Anderson Collection of Art Nouveau given to the University of East Anglia. The collection, which has more than 120 objects, has been built up by Sir Colin and Lady Anderson and was formerly kept at Admiralty House, Hampstead. Sir Colin is provost of the Royal College of Art.

Alternative prospectus issued

Manchester University students union is to produce the first post-graduate alternative prospectus.

Although several unions now produce their own prospectuses for undergraduates, some of which contain relevant information for postgraduates, Manchester is the first union to compile a specialist booklet for the latter.

It will be ready in time for the beginning of the next academic term. About 2,000 copies will be produced, at an approximate cost of £1,000.

The formula will be similar to that adopted for undergraduate prospectuses but will contain less general information about the university.

The assumption will be that readers will know generally how universities work, and many will be Manchester graduates. Conversely more emphasis will be placed on the particular range and content of courses.

Free copies will be sent to most universities and student unions.

Birthday honours

Professor J. E. G. Raymont, professor of biological oceanography at Southampton University, was awarded the OBE in the recent Birthday Honours list. Mr R. A. Gammon, director of the Southern Science and Technology Forum also at Southampton, was awarded the MBE. Professor Kathleen Bell, professor of Social Studies at Newcastle University, was awarded the CBE.

SEO critical of Oakes plan for council membership

by Peter David

The Oakes report recommendation for only eight or nine local authority members on its proposed national council for higher education is ungenerous in view of the report's claim to want a strong local government presence, according to the Society of Education Officers.

In a generally sympathetic response to the report, the education officers say that the proposed constitution of the body "properly reflects those interests which should be represented", but the local authority representation is disappointing. The local authority will be a valuable safeguard, but ought not to be invoked too often, they add.

Commenting on the proposals for management of colleges at local level, the SEO calls for a review of the composition and functions of governing bodies.

"Some advice on articles of government and a further exploration of the frontiers of autonomy would undoubtedly be helpful, bearing in mind that a governing body can only be accountable and have effective delegated authority if it is seen to be directly responsible to the local education authority which appoints it."

The officers conclude: "The society, however, believes that it is important to reinforce the local authority role in higher education, and that Oakes, by retaining democratic control, devising structures to enhance accountability and preserving the unity of education on the maintained side of the binary line, has not done a disservice."

Accountancy chair

The first chair of accountancy to be supported by a firm of chartered accountants will be established in Durham University's department of economics this autumn.

It is hoped that students taking accountancy as part of their honours course will gain exemption from the foundation examination of the Institute of Chartered Accountants.

SRC venture in cooperation with industry

by Robin McKie
Science Correspondent

A new Science Research Council venture aimed at boosting cooperation between industry and universities was announced this week. The scheme is intended to cover all the biological, engineering and physical sciences for which the SRC is responsible.

A total of £500,000 has been allocated for the venture in addition to the grants already provided by the council's special programmes which cover marine technology topics.

Academic and an industrial partner, usually engineering and other students, the teachers also call for a pilot study to be established which would point out a few, limited successful cases as schools which have taken steps to motivate pupils towards engineering.

But the forum adds: "There is a need for some fundamental reassessment of both kinds of teachers and them, on the one hand to help them to adapt science teaching to meet the challenges of engineers, and on the other hand, to help technical teachers upgrade their subject. Both kinds of teachers should be able to recognize the potential of a career and be able to foster his natural motivation towards engineering."

The forum urges that "massive" support be given to these retraining programmes and also to influencing the initial training of teachers.

NALGO president

An adult educationist is the new president of the National and Local Government Officers' Association. Mr Edward Alderton, area principal for adult education in Bexley, was formerly inducted as NALGO president at the union's Brighton conference this week. As a prisoner of war in 1941 he founded an education system which became known as the "Barbed Wire University". In 1950 he established an adult education centre in Bexley, and at the same time took up the post of education secretary to the south east district of NALGO.

Guide to university entrance demands

The Committee for Vice-Chancellors and Principals has just published *The Compendium of University Entrance Requirement for First Degree Courses in the U.K. 1979/80*. It includes information on minimum requirements, new courses and a description of institutions.

Tories' wide-ranging youth programme

by Patricia Santinelli

Radical reforms in national and local government structures to support a new and comprehensive approach to youth policy are proposed in a Conservative Party report published this week.

The report, "Time for Youth", calls for the setting up of a Department of Education and Training, whose scope would be ratified by a new education and training act.

The new department would take over the functions of the Department of Education and Science and the Department of Employment, with responsibility for an overall strategy for the school leaver with specific incentives for further education and training.

It would control the administration of the Youth Opportunities Programme or its successor as part of a major universal training and opportunities scheme for all 16 to 18-year-olds not going into full-time education. In addition the department would have a Minister of State for Youth, advised by a revitalized Youth Forum.

Locally a dual structure is proposed involving new education and training committees at county council and metropolitan district level, to be directly responsible to the new department.

They would absorb the functions of local education authorities and would be responsible for the administration of YOP local centres. They would also coordinate all youth provision including that currently administered and financed through other local government committees.

Each education and training committee would be serviced by three main sub-committees; education, youth and careers advice and training. This official structure would be complemented by a consultative committee involving young people and youth organisations in decisions on matters of policy and expenditure.

Higher priority for the youth service is being ensured by an extension of provision to include the ages of 16-25, by a requirement to count two young people under the age of 18 on each sub-committee and by giving a fixed percentage of the total budget to the youth sub-committee.

It is suggested that the department would be financed by amalgamating current provision for education and the training and job creation programmes. Funds administered by Legas and those allocated to the YOP centres would supplement this.

The report indicates that the introduction of a universal training and opportunities scheme would have a dual purpose. It would successfully remove 1.3 million young people from the job market by delaying their entry until 18 as well as provide them with adequate training.

The scheme, composed of two-year training programmes submitted by colleges of further education, industry and voluntary organizations, would provide a wide range of alternatives ranging from technical training to community industry and community services it is believed. This would help young people to determine what kind of jobs they could apply for and give them an incentive for continuing education.

The cost, estimated at £700m a year, would mean that each youngster would receive something akin to the YOP £19.50 a week. The total would include the £350m per annum spent on YOP, and would, it is suggested, be less expensive than continuing temporary employment subsidies and paying £460m in supplementary benefits.

The report believes that the payment of allowances to school-leavers will necessitate a radical revision of full-time further education grants.

Dichotomy in *engineering*

by Robin McKie
Science Correspondent

A national programme, carried out by groups of teachers, engineers and industrial psychologists, should be set up to identify the skills needed for future engineers in this country. That is the main recommendation of the School Technology Forum, an association of teachers interested in engineering education, in its evidence to the Finniston committee's inquiry into the manufacturing industry.

The forum believes there is a fundamental dichotomy between the needs of industry and the type of engineering education in Britain.

Recruitment to engineering was done largely on evidence of achievement in mathematics and science. "But between engineering and science there is a fundamental difference which can have a an acute effect on the types of people who are attracted to and successful in each", its report adds.

"While science is primarily concerned with the acquisition of knowledge, engineering is concerned with using knowledge, scientific or otherwise, to solve practical human problems through the creation of devices, processes and systems."

There are few grounds for believing it is a straightforward matter to make a good engineer out of somebody on the sole grounds that he has ability in the analytical sciences, the forum believes. And because of the mismatch between engineering and scientific standards, a false set of comparative values percolates down into the middle years of schooling and this becomes one of the major causes of decisions taken against engineering as a career.

To highlight the correct skills needed for pupils entering engineering, the forum calls for a national programme of study groups to be set up. And to overcome the objections of the "more traditional" schools and engineering departments, the teachers also call for a pilot study to be established which would point out a few, limited successful cases as schools which have taken steps to motivate pupils towards engineering.

But the forum adds: "There is a need for some fundamental reassessment of both kinds of teachers and them, on the one hand to help them to adapt science teaching to meet the challenges of engineers, and on the other hand, to help technical teachers upgrade their subject. Both kinds of teachers should be able to recognize the potential of a career and be able to foster his natural motivation towards engineering."

The forum urges that "massive" support be given to these retraining programmes and also to influencing the initial training of teachers.

Poly pooling plan 'dropped'

by Peter David

London polytechnic directors are confident that controversial proposals by the Inner London Education Authority to pool teaching vacancies between the five ILEA institutions have been dropped.

Mr John Bevan, deputy education officer of the authority, launched the proposal at the end of last year. Its aim was to reduce the number of teaching staff at three polytechnics and redistribute the vacancies to two relatively understaffed polytechnics.

Under Mr Bevan's scheme the Polytechnic of North London would have lost 22 posts, South Bank 15 and Thames nine. The Polytechnic of Central London would have been given five extra posts and City Polytechnic 18 extra posts in the first year of the operation.

But the plan was strongly opposed by the National Association of Teachers in Further and Higher Education and by some of the polytechnic directors. Mr Vivian Pereira-Mendoza, South Bank's director, said this week that no action had been taken by the ILEA. "It rather looks as though they have dropped the idea."

Dr E. R. Godfrey, director of Thames Polytechnic, said that the ILEA had approved Thames's staff establishment for next year and the scheme appeared to have been abandoned. "We certainly would not welcome any resurrection of it," he added.

Mr Arthur Prior, a spokesman for the central London branch of NATFHE, confirmed that the union had submitted a strongly critical response to the scheme to the ILEA. He said the main objections had been the concept in the plan of "robbing Peter to pay Paul", and the use of student-staff ratio calculations which were not accepted by NATFHE.

But he said the union accepted that there was serious understaffing at two London polytechnics, particularly in social science and business subjects. NATFHE officials met Mr Bevan last week to argue for additional teaching appointments.

Mr Ellis Hillman, chairman of the authority's higher education sub-committee, confirmed that the plan appeared to be "in cold storage in a big way". He pointed out that it had been an officers' initiative and had never been discussed at a political level.



Young girl with light sculpture, umbrella and fire extinguisher, at the Royal College of Art degree show which opened in London this week.

Shadow of death over growth

by Ngaio Crequer

For the first time the number of deaths in Britain has exceeded that of births—which could have serious implications for the future of teacher training and the demand for higher education.

According to a demographic review published by the Office of Population Censuses and Surveys Britain's population has ceased to grow within the past two years. In 1976 there were more deaths than births, for the first time since records were kept, and the same was likely to be true of 1977.

The drop in live births since 1965 obviously led to a fall in the number of children in primary schools. This, in turn, has affected the demand for teachers and the size of the sector dealing with teacher training.

According to the review, the numbers of children in primary education will continue to fall until 1985 and the numbers in secondary education from 1979 until 1990.

By the 1980s the smaller number of children born in the 1960s will reach the age in which they will either take up higher education or join the labour force.

Unless the proportion continuing in full-time further education and higher education increases, demand for places in universities and polytechnics will fall. The review says. But it predicts that the cost of educational services will not fall to the same proportion.

The possible change in participation rates, the cost of overhead expenses and the management needs of the teaching force, will continue to make heavy demands on the education service. — *Demographic Review*, HMSO, £2.75

NUS set for emergency conference

by John O'Leary

An emergency conference of the National Union of Students is almost certain to be held in October to discuss the Government proposal for a new system of financing student unions.

More than 300 delegates attended a weekend briefing conference in London on the proposals, at which the need for a formal discussion was accepted. Attempts by some groups to take "indicative votes" was ruled out of order.

Delegates described the briefing conference as confused and the incoming NUS president, Mr Trevor Phillips, said it had shown how complicated the issue was. He added that the Department of Education and Science's proposals had not covered all the questions raised by a change of system.

Mr Phillips said there could well be an emergency conference in October but it depended on the timing of talks with the DES. The question is to be discussed at Sunday's meeting of the NUS executive.

A draft "charter of student union autonomy", called for at the Easter NUS conference, was one issue of disagreement at the briefing conference. Some groups wanted a stronger statement than that suggested.

The draft charter asserted: "We seek to decide our own policies and meet our members' wishes by democratic means and within the bounds of our constitution. As a right, we expend public funds, according to those policies and demand the adequate provision of funds for these purposes for all unions.

"We wholeheartedly accept the right of public scrutiny of our accounts to demonstrate that we act in accordance with our constitutions."

The target date of June 30 for responses to the DES proposals will not now be met by some of the major contributors. As well as the NUS, the Council for Local Education Authorities will not discuss the scheme until next month and the Committee of Vice-chancellors and Principals is also to consider the proposals further.

Features, 9; Leader, 27

Profile of typical British Library reader

by Judith Judd

A typical British Library reader is a university academic or postgraduate. If he is British he is likely to come from London or the South-east. If he is from abroad he is probably from the United States.

These are some of the results of the first survey of British Library readers since 1968. It covered 1,236 readers. It shows that nearly 70 per cent of readers are a mixture of university academics (40 per cent) and postgraduates (over 25 per cent.)

Others who use the reading room of the British Library Reference Division are freelance writers, professional researchers and retired people.

About half the students and academics in the survey were from this country. Forty-five per cent of the British came from London, six per cent from Oxford, three from Cambridge and 16 per cent from South-east England.

Half the London readers came from only four colleges, University, Kings, the London School of Economics and the School of Oriental and African Studies.

Almost a quarter of all readers live between five and 10 miles from the Library and 12 per cent within postal districts W1, WC1 and WC2.

After the United States most foreign readers came from Canada, France, West Germany, Italy, Australia and Israel in that order.

Those who use the library use it regularly. A third said they came every day and a further third came every week. The most popular subjects being studied were history, which accounted for nearly half the readers, and literature, which accounted for a third. After these two came general reference, fine arts and biography.

Nearly 60 per cent of those who answered the questionnaire said the library provided all they required for the day but 5 per cent said the library met none of their needs. Fifty-five per cent said they believed the British Library was the only library capable of meeting all their needs.

Yorkshire students lose interest in teacher training

Careers staff at Sheffield and Leeds universities report significant declines in the numbers of graduates entering teacher training, but say the jobs outlook generally is not entirely bleak.

At Sheffield 12.9 per cent of graduates, compared with 15.6 per cent in 1976, entered teacher training last year. According to the annual report of the Careers Advisory Service, if graduates were prepared to be mobile there were good opportunities for teachers of modern languages and physical sciences.

According to the Leeds Career Service report, there is a vital need to tell intending teachers which subjects are in short demand in the schools.

Sheffield says that the numbers employed in productive industry have fallen dramatically and according to a recent survey companies anticipated that unemployment would be the same as now, or worse by 1980. Nevertheless, graduates continue to have a significant advantage over others entering the job market for the first time.

The number of Sheffield graduates known to be unemployed by the end of the year increased from 4 to 5.2 per cent, with the bulk coming from the faculties of arts and pure science. The demand, however, for chemical, electrical, control and mechanical engineers greatly exceeded the number of graduates and the position is likely to be similar next year.

At Leeds it was a boom year for chemists, and commerce and industry took a higher number and proportion of graduates in 1977 than in either of the two previous years

Laser shines new light on tracing pollution

by Robin McKie
Science Correspondent

An ultra-violet laser system is being developed at Imperial College, London, which should be able to scan ground pollution and oil slick movements from the air.

This was one of the research projects on show at the sixtieth anniversary exhibition of the college's optics section, held at the Blackett laboratory last week. Other work on show included developments for identifying diamonds using holograms and a new electronic system for processing satellite photographs of earth.

The laser project is being carried out by Miss G. Rekston as part of her postgraduate studies and involves an ultra-violet laser which is used to induce fluorescence in plant leaves. It is believed that the exact content of the plants determines the nature of the fluorescence emitted and variations can be detected using sensitive electronic equipment.

Miss Rekston said it would be possible to scan large areas of both cultivated and natural vegetation using an aircraft-borne laser. The resulting fluorescence could also be detected and analysed by equipment on the aircraft which would reveal information about the amounts of different trace metals in plants.

In areas where there had been pollution, for instance near nuclear power stations, it would be quickly detected by the laser system which could also be used to determine the movements of oil slicks at sea.

Another project at the exhibition was a system for making holographic copies of microscopic fossils. Using this method, researchers hope to be able to produce clear, three-dimensional images of very small objects which could be used to duplicate reference collections at the Natural History Museum and other centres.

This new system would have importance for oil companies who often use fossil collections to date samples taken from potential oil-bearing rocks. However, Tom Simpson, who is working on the project, said they were still trying to remove speckle—an optical interference caused by the ordered nature of the laser light used in the holograms—which was affecting the clarity and resolution of the fossil images.

Accountancy students want pay parity with l.e.a. grants

by Patricia Santinelli

Chartered accountancy students are seeking a minimum initial starting salary which would bring them into line with students receiving local education authority grants.

The Association of Chartered Accountant Students Societies believes that £1,500 to £1,600, the equivalent of an l.e.a. grant suitably grossed up, and based on London weighting, would enable students to live independently without parental support or having to work overtime.

The scheme outlined in a paper produced by ACASS is supported by the Institute of Chartered Accountants and is designed for discussion by district societies which are due to report to the ICA by next month.

A survey of initial salaries for 1976-77, which took a sample of nearly 5,000 students on three and four-year contracts, shows that graduates are doing much better with only 8 per cent receiving less than £1,600 compared to 60 per cent of the non-graduates.

At the top end 17 per cent of the graduates were achieving salaries of £2,400 in their first year, while as little as 1 per cent of non-graduates reached this figure.

ACASS is convinced that the scheme would be beneficial because it would remove student financial worries and enable them to study effectively. It argues that it would also provide equal opportunities for richer and poorer students, and would boost the examination pass rate, by excluding from training contracts the less able students.

"Chartered Accountancy is one of the few professions which adheres to an article method of training without financial aid from the Government towards education and training," the paper says.

"This may change but in the meantime students should not be expected to live on less than they would receive in any alternative type of further education."



Tea for two: Dr Colin Adamson, rector of the polytechnic of Central London, with Madame Elena Ceausescu, wife of the president of Romania, who was awarded an honorary professorship by the polytechnic.

Gulbenkian priority for disadvantaged

by John O'Leary

Educational disadvantage in the 14-25 age-group and "community communications" are to be given priority in the allocation of grants from the Calouste Gulbenkian Foundation this year.

The foundation's annual report shows that in 1977, for the first time, education received the largest share of the money offered or distributed in the United Kingdom, the Commonwealth and the Republic of Ireland. Of the total of £734,717, almost £250,000 went to educational projects.

Previously, the arts have always taken the lion's share and the report emphasizes that there is no intention of changing the traditional preoccupation with the arts in all their forms.

On the education side of the Gulbenkian's activities, the two priorities will be in inner-cities and the arts in education, both adopted five years ago, have been revived. The commitment to inner-city education will remain but has been redefined to fit in with the foundation's other programmes, while the arts in education are no longer considered of primary importance.

Top priority is to be given to projects aimed at allowing "community voices to express themselves" through their own small presses, minority journals, local radio and television, as well as exploring ways of persuading the "official media" to give more attention to community expression.

The second priority will be assistance for the neglected minorities in education, concentrating particularly in the 14-25 age-group, a change of policy which grew out of the foundation's experience of inner-city education.

Of last year's education expenditure, £113,000 was offered for projects concerned with the arts in education, £68,500 for community education work and £67,800 for inner-city projects.

Better deal urged for non-academic

Our education system needs to be radically revised to reward young people whose talents cannot be assessed by present examinations, Mr Eric Bourne, staff inspector for the Inner London Education Authority, warned last week.

Mr Bourne told the Association of Colleges for Further and Higher Education's conference that the present system with too much emphasis on academic attainment and too little recognition of vocational education was denying access to youngsters who skills and abilities were desperately needed by our society.

"The question of securing access is clearly central to any consideration of educational deprivation", he said. "For as long as access to jobs or education is governed largely by evidence of academic attainment, it automatically debars many people from proceeding into careers for which they may be eminently suited."

He added that if we wanted to survive in a technological society we should look to practices and expertise in further education there courses offered a well balanced combination of basic educational skills and learning for selected purposes —and advocated this as a genuine and timely alternative.

Our traditional association with industry and commerce was a strong base from which to demolish the notion of academic pre-eminence and secure for vocational education a place equal to that accorded to other excellences.

We should recognize that for many adolescents the best form of education was not one conducted entirely in educational institutions but one which took place partly in a working situation.

This would not lead to any dramatic increase in day release, but it should encourage the re-establishment of a partnership between education and industry which could face the realities of daily life squarely.

Graduates have become more flexible

by Ngaio Crequer

The graduate of today, compared with his 1968 counterpart, is more flexible in his approach to employment, prepared to wait longer to find a job, and with a good all round education.

This is the view of the University of Dundee Careers and Appointments Service, which is now celebrating its tenth year.

The report says that at Dundee students benefit from becoming generalists. Universities have also claimed, wisely its says, to produce complete, ready-made engineers, lawyers, doctors and other professionals.

In 1968 students would know as a vigorous attempt to find a job during their final year, particularly in the Spring term. But only a few, perhaps even a minority, in that presumably happy year.

Job-finding is now a much more time-consuming task but the vaccination of some graduates seeking employment is often planned.

One group of students who suffered badly in 1977 from the setbacks in teacher training were mature students. Most of those who failed to gain entry to Dundee College of Education were local married men, many of whom, for family reasons, felt unable to accept jobs elsewhere.

Employment prospects for Dundee graduates are fairly optimistic.

In 1968 3.8 per cent of the medical first degree graduates were still seeking employment at the end of the year. In 1976 the figure was 5.9 per cent, and in 1977 it was 6.4 per cent.

Ulster counselling service finds help

by Maggie Richards

An educational organization having over responsibility for the independent educational guidance service, under threat at the end of following withdrawal of funds from the Northern Ireland Department of Education.

The Association for Adult Education announced that the service would be taking over as an umbrella body for the Northern Ireland Educational Guidance Service for Adults, although the service will remain in its original Northern Ireland Council of Social Service premises in Belfast.

Since the withdrawal of funds at the end of March, the service has struggled to continue its existence, and meet the demand for its new clients.

A statement issued by the association this week said: "There is evidence of a continuing demand for such a independent service and the association will make every effort to meet the clearly expressed need. It is hoped that even at this late hour the Department of Education will reconsider the expressed wishes of clients, referrers and will reconsider their decision to withdraw all financial support."

But the association made it clear that it would not be able to take over funding responsibility for the service—which has an annual budget of about £14,000.

"This was a modest outlay which, we believe, for a venture which has achieved so highly in a particular field", the statement says.

Union call for training reform

The present system of educating and training engineers is badly in need of reform. This is the view of the Amalgamated Union of Engineering Workers which has urged that considerably greater resources need to be put into training schemes which can respond quickly to industry's changing needs.

In its submission to the Finniston committee's inquiry into the manufacturing industry, the union's technical and supervisory section stresses that every effort should be made to remove barriers to people of either sex seeking higher qualifications. Educational establishments should be allowed maximum freedom to develop their own resources.

And the union believes that a new instrument is required to monitor education and training standards for engineers. "It will require real teeth if it is to make employers face their responsibilities", the submission states.

"We believe that the Engineering Industry Training Board provides the correct vehicle for bringing together the various parties charged with dealing with the problems being examined by the committee".

But the union stresses that the real roots of the engineering profession's lack of status is the inadequate salaries for qualified engineers. Only strong trade union organization and collective bargaining can resolve this central problem.

"Qualified engineers need the support of their colleagues in the industry within well established and powerful trade unions affiliated to the Confederation of Shipbuilding and Engineering Unions".

Physics prize goes to Utah

The 1978 Appleton prize for ionospheric physics has been awarded to Professor P. Banks, head of physics department at Utah State University, for his studies of the plasma flow between the ionosphere and the magnetosphere.

The triennial award was established in 1966 by the Royal Society to commemorate the work of the late Sir Edward Appleton, Nobel prize winner in physics in 1947. This year's prize will be presented at a special session of the international Union of Radio Science general assembly in Helsinki in August 2.

Shakespeare's Sonnets

Edited by W. G. Ingram and Theodore Redpath

This detailed critical edition of Shakespeare's Sonnets offers a text in modern spelling and punctuation which is the result of the most careful and thorough revision since the great work of the Cambridge editors a century ago. Accompanying the text is a commentary on the poems; the editors have glossed every word likely to cause difficulty to the modern reader, and every textual crux and vexed point of interpretation is discussed. The notes also draw attention to the verbal play that marked such contemporary writing, and consider interpretations by past scholars and editors. The introduction provides a history of the text and a short account of some other annotated editions. The editors have focused on literary and experimental qualities of the poems rather than biography, identification of persons, order or dating.

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North American News

Clive Cookson reports from the AAUP's annual meeting in New Haven

Professors falling behind on pay

For the fifth year running, academic pay has failed to keep up with inflation, according to the AAUP's annual report on the economic situs of the profession.

The survey, based on data obtained by the National Centre for Education Statistics, from 1,600 colleges and universities, is the most comprehensive analysis of American faculty salaries.

It shows that the average increase in compensation (salary plus fringe benefits) for 1977-78 was 5.9 per cent, compared to a 7.2 per cent rise in the consumer price index.

For the individual faculty member things are slightly better, said Professor Anne Krueger, of the University of Minnesota, chairman of the AAUP committee that prepared the report. The average salary increase for "continuing faculty"—those on the staff for both years—was 7 per cent, reflecting promotions to higher ranks.

The average salary in universities and colleges with academic ranks is now $28,960 for full professors, $22,000 for associates, $18,010 for assistants and $14,620 for instructors.

Academic pay is highest in the most prestigious private universities—significantly higher than in the best state universities. For example, average professorial pay is $40,500 at Harvard and $37,100 at the eight Ivy League institutions, compared with $35,000 at the University of Michigan and $35,300 in the University of California system.

But among small liberal arts and community/junior colleges the position is reversed, with salaries significantly higher in state institutions than at private colleges. Church-related colleges have by far the lowest pay scales.

CIA 'needs help from scholars'

CIA director Stansfield Turner, chose the annual meeting of the American Association of University Professors as his platform to issue a strong appeal for a reconciliation between the academic community and American intelligence agencies.

The United States needs good military, political and economic intelligence more than ever before, said Admiral Turner, because the country's military, political and economic dominance has eroded over the past 30 years to today's "near parity" with "closed societies".

And the CIA and its sister intelligence agencies need the help and cooperation of the academic community—"the country's greatest concentration of research skills"—both to obtain information and to analyse it.

"We don't want to risk lives and spend money to collect information clandestinely overseas when it is available openly within the United States", said the admiral, a former Rhodes Scholar at Oxford.

He said the agency regularly consults American scholars on an informal basis as well as maintaining formal consulting contracts. These are sometimes kept secret at the request of the academics who do not want their colleagues or students to know they are working for the CIA.

On the controversial issue of secret CIA recruitment of United States and foreign students and scholars on American campuses, Admiral Turner pleaded with his audience of several hundred university teachers to treat the agency in the same way as any other organization.

Big industrial corporations, for example, sometimes screen potential recruits without their knowledge before making them a job offer, and the CIA—the biggest employer of PhDs in the American government—should have the same opportunities. He criticized universities like Harvard which impose harsher recruiting standards on the CIA than on any other organization.

Under questioning from Morton Halperin, the director of the Centre for National Security Studies and a leading CIA critic, Admiral Turner admitted that the CIA does recruit "a very few" of the 120,000 foreign students studying in America. But, he emphasized in his first public statement on the matter, coercion is never used.

Admiral Turner claimed to be developing "an exciting new American model of intelligence-gathering. Our intelligence community is under tighter control and operating more openly than ever before".

The CIA is publishing as much unclassified material as it can two reports come out on an average week. "This is not a public relations gimmick. It is founded on the belief that the better informed the American public is, the more secure we shall be", he said.

"I think there is untapped potential for the academic community in the intelligence communities and their resources", he said. One example was the information that American archaeologists could obtain from CIA aerial photography about sites inaccessible to them for political or geographical reasons.

Admiral Turner took charge of the troubled American intelligence community last year after a naval career during which he served as president of the Naval War College of Rhode Island, commander of the US Second Fleet and finally Nato Commander-in-Chief in Southern Europe. He was a far smoother and more impressive speaker than any of the professors who addressed the two-day AAUP conference.

The president of Amherst College, John Ward, suggested that the policy analysis side of the CIA should be split off from the information gathering (spying) activities. But Admiral Turner said the present integration of collection and analysis of data was essential and could not be broken for the sake of those who felt bad about working for the CIA.

He revealed that he had seriously considered another reorganization—separating "covert actions" (influencing events abroad) from "clandestine activities" (secretly gathering information). He decided against it because of the danger that a bureaucracy devoted solely to covert actions would feel obliged to undertake actions whether or not they were justified.

Questioned about the morality of working for the CIA, Admiral Turner replied: "We believe with a sincerity that we can say anywhere we are prepared to die and we have proclaimed, that our intelligence work are neither quantitatively nor qualitatively different from those in other fields of work."



Stansfield Turner: consulting scholars

Tenure-busting 'a serious challenge'

"Some things never seem to change. Tenure is always under siege", said Professor Peter Steiner of the University of Michigan, in his presidential address to the association.

His words put into perspective alarms raised at various times during the meeting about the current nationwide epidemic of tenure-busting by college and university trustees and administrations". This was how Professor Phillip Jessup, of Ohio State University, described it in his report on the activities of the AAUP conferences.

Professor Jessup called tenure-busting "the most serious challenge the association and the profession face today".

He said: "The combination of rising costs, static or falling enrolments, and scarce job opportunities strongly tempts nearly every short-term self-interest to depart in favour of temporary or part-time appointments, and rolling contracts."

Dr Morton Baratz, AAUP general secretary, put increasing opposition to the tenure system first on his list of major issues facing the association.

Professor Bertram Davis of Florida State University, chairman of the AAUP committee A on academic freedom and tenure (to the association the two are inextricably linked) spoke of the increasing frequency with which academic job advertisements seek recruits for "non-tenure track positions".

These include "holding chairs", "limited renewable contracts" (renewable for up to seven years) and "indefinitely renewable contracts". They are all created primarily in order to evade tenure, he said.

The meeting censured three institutions for contravening its principles of academic freedom and tenure: the State University of New York (SUNY), University of Detroit and Phillips County Community College, (New York). East Stroudsburg State College, Pennsylvania, was censured for the way it dismissed more than 100 tenured and untenured teachers during the state's 1975/76 financial crisis.

"The retrenchments were initiated by the university administration without appropriate consultation with the faculty and without any showing of a financial exigency which actually threatened the continuance of the university", reported the AAUP investigating committee.

"They were overseen by the administration with disregard for the rights of tenure, for due notice and for the role of the faculty in institutional government."

The University of Detroit, a Jesuit institution, was censured for "the precipitate, disorderly way in which the appointments of approximately 40 faculty members were suddenly terminated in mid-year" because of declining enrolments.

The case of Phillips County Community College is very different. It was censured for dismissing a teacher who wrote a confidential letter to the state authorities accusing the college of evading state and local taxes and fees on its cars.

Canadians increase cash for research

from our correspondent

WASHINGTON

The Canadian Government has announced a major programme of long and short-term measures to stimulate scientific and technical research —an activity in which Canada lags well behind the rest of the industrialized world.

The Minister of State for Science and Technology, Judd Buchanan, told the House of Commons in Ottawa that the Government would make it a national priority to spend 1.5 per cent of the gross domestic product (gpd) on research and development by 1983.

The current level is about 0.9 per cent of gpd—half that of many Western nations. Canada's research expenditure will have to increase by at least 15 per cent a year to reach the new target.

The highest priority will be to improve industrial research and development for example, by directing government procurement (worth $4,000 million a year) towards innovative Canadian firms, and giving companies generous tax incentives to do more research.

But university science will benefit immediately from some of the measures and stands to gain in the longer term from the lifting of the depression that has hung over Canadian science for the best part of a decade. The Government package includes:

● A $100m budget supplement for the three granting councils in 1978-79, to support university research "in areas of national need". The Natural Science and Engineering Research Council gets an extra $30m, the Medical Research Council $7m and the Social Science and Humanities Research Council $3m. Each council will be able to decide how to spend its own bonus.

● Regional Industrial Research and Innovation Centres will be set up at five universities in different parts of Canada over the next two years.

● "Centres of excellence" will be established across Canada, drawing upon each area's "natural and human strengths" to develop world-class research facilities for use by government, industry and universities.

● The new Scientific and Technical Employment Programme *TIHES*, May 26, 1978) will be expanded to create jobs for scientists and technicians to undertake research projects in university laboratories at the request of firms whose own facilities are inadequate.

The package is meant not only to increase expenditure on research and development but also to integrate industrial, university and government research. The overall aim is to reduce the country's dependence on foreign (especially American) technology.

Dr R. O. Morgan, president of Memorial University, Newfoundland, and president of the Association of Universities and Colleges of Canada, said the universities regard the measures as "a most breakthrough in the difficult times that have beset research activities in Canada in recent years.

Secretary's view of the problems

Morton Baratz, at his first annual conference since he became general secretary of the AAUP last summer, told delegates he sees four major issues confronting the association.

One is the attack on tenure. The other three concern the association's own future:

● What role should it play on multicampus state systems, like the State University of New York, where academics are represented—in the AAUP's view inadequately—by another organization (the National Education Association or the American Federation of Teachers)?

● How can the country's present decline in AAUP membership. The association must differentiate itself clearly from rival groups, persuade academics of the benefits of membership and re-awaken dormant chapters, he said.

● Is the association foreswearing its historic concern with the well-being of higher education as a whole and becoming too concerned with the material well-being of its members?

Computer secrets order quashed

WASHINGTON

The government has withdrawn the controversial secrecy order imposed on University of Wisconsin computer expert George Davida, following a storm of protest about this attack on his academic freedom.

The United States Patent and Trademark Office (part of the Commerce Department) imposed the order in April on the advice of a "defence agency"—thought to be the National Security Agency — when Dr Davida applied for a patent on his work, which was partly classified and funded by an Air Force National Science Foundation grant (*TIHES*, June 9, 1978).

Officials at the university's Milwaukee campus where Dr Davida works think the latest action may have been due to the personal intervention of Commerce Secretary Juanita Kreps.

Institute maps out seven steps towards equality

WASHINGTON

The Institute for the Study of Educational Policy at Howard University, America's leading black university, is doing its best to revolve the country's flagging interest in affirmative action to help minorities.

Last week, knowing that it might be overtaken by the Supreme Court's ruling on the Bakke case—expected any day—the institute released a report, *Affirmative Action for Blacks in Higher Education*, which makes seven recommendations for maintaining the momentum towards true educational equality.

They are:—

● The federal government should show more public support for affirmative action

● All institutions should be required to implement affirmative action employment procedures, not just those receiving more than $50,000 a year in federal funds (the present law)

● Institutions should be required to develop affirmative action programmes for enrolment of graduate and professional students.

● Affirmative action regulations should be simplified and stated more clearly.

● The Office of Civil Rights (part of the Department of Health, Education and Welfare) should be given better trained staff and more resources to enforce regulations. It should be less reluctant to impose financial penalties on offending institutions.

● Each university and college should set up an affirmative action office with sufficient funds, staff and authority to do the job.

● Finance for minority graduates and professional education and student aid should be increased.

Introducing the report, Dr Kenneth Tollett, chairman of the institute's national advisory board, said the board "is gravely disturbed by the emerging changing mood in our society which manifests itself in several negative forms, one of which is an assault upon affirmative action.

"It is a melancholy fact to reflect upon that once the principles and procedures of affirmative action explicitly were made applicable to higher education, the most sustained, insidious, and probably effective assault on affirmative action came from those closely associated with academe.

"The institute is not insensitive to the real problems and difficulties imposed upon those who, even conscientiously and sympathetically, try to abide by the procedural and substantive requirements of affirmative action. The problems and difficulties are small in comparison the wrongs that have been committed and the social benefits to be received by those who have so long been excluded and denied."

A white board member, Dr James Perkins of the International Council for Educational Development, agreed that the United States still has a long way to go to translate the notion of equality of opportunity into reality, both in admissions and in faculty employment.

Dr Tollett said the civil rights movement had been weakened by Americans' inability to remain interested in an issue over a long period of time. Other causes such as feminism and the environment had siphoned off support for affirmative action.

Under questioning, he denied that the success of affirmative action was weakening the traditionally black universities by drawing the best minority students to the more prestigious white universities. He said that all presidents of black colleges support affirmative action, because they want to increase the total number of educated blacks in the country—their future faculty members.

Australia

Law banning compulsory student unions spreads

from John Kirkaldy

SYDNEY

The federal government, in a move which is likely to reverberate around Australia, is to introduce a law to allow students to opt out of union membership in the Australian Capital Territory (ACT).

The legislation will also ban students' union membership fees being used for anything except amenities at universities. The government will recommend that states who have not introduced such legislation should do so.

The proposals illustrate some of the problems in federal-state relations with regard to education. Tertiary education (unlike schools) is completely federally funded but legislation affecting the existence and running of universities and colleges of advanced education is state responsibility.

The Liberal governments of Victoria and Western Australia have already passed laws to make membership of student unions voluntary, and Queensland is likely to follow their example. Federal Minister for Education, Senator John Carrick, indicated that this will now soon apply to the Australian National University (ANU) and the Canberra College of Advanced Education.

Prime Minister Mr Malcolm Fraser has written to all state premiers urging legislation banning compulsory student union membership in all tertiary institutions. It is very unlikely, however, that the Labour states of New South Wales, South Australia and Tasmania will heed his advice.

Two interlocking principles are at stake. First, should a student have the right to opt out of union membership completely? Second, should student union money be spent only on amenities (sport, entertainment, catering, etc.) or should some of the funds be available for social and political causes?

The federal government has come down firmly on the side of the voluntary and non-political students' unions. Senator Carrick told the federal parliament that he believed the Melbourne University Bill 1978 prepared in Victoria was "reasonable and practical" and that the government would follow its general lines in preparing its own legislation.

Some of the provisions of the Bill are:

● The council of the university shall not authorize a students' representative council to expend money raised by the university for the provision of amenities or services unless the governing body of that council is elected by students in an election at which not less than one quarter of the students entitled to vote have voted.

● The council of the university is to have a duty to ensure that any money it makes available to a student organization for provision of amenities and services are applied bona fide to provisions of amenities and services of direct benefit to the university.

● The council is to have published and freely available to students at least twice a year an audited statement as to the amount of fees paid by students for amenities or services that are not of an academic nature, the organization to which any part of this money has been paid and the purpose for which it has been spent.

● No one shall be required to be a member of any body or organization in order to entitle him or her to be admitted as a student or to graduate.

The proposed legislation comes at a time when AUS is at a low ebb. Last year eleven institutions seceded from the body, causing an almost halving of the budget from A$714,000 to A$425,000. Court cases over the issue of the status of students' unions have also reduced its funds.

The campaign against compulsory student unionism has been led by groups of liberal students. They oppose compulsory unionism on principle and object to some of the activities for which students' unions have used their funds for in the past. They also allege that in certain instances proper records of money contributed to various causes have not been kept. Causes for which money has been contributed include Third World groups, women's liberation and left-wing campaigns within Australia.

South Africa

Medical students 'joining rush to emigrate'

from Louis Botz

JOHANNESBURG

South Africa's "brain drain" is likely to continue and worsen unless action is taken soon, says the chairman of the country's Medical Research Council in his annual report.

Professor A. J. Vrink says the council is so short of funds that it cannot encourage young medical research workers, who emigrate to countries offering better opportunities.

In his report he calls for an investigation into the present system of allocating government funds to the various statutory research bodies.

His concern is underlined by a survey conducted among medical students at the University of Cape Town. The survey, conducted by a student publication, shows that a third of the final year students intend to emigrate when they qualify, many of them immediately after graduation, the rest after anything up to five years in practice.

A fifth said they were unsure of their future in South Africa.

Although the university authorities discount the significance of the survey, it is a fact that a number of even prominent specialists have been emigrating in appreciable numbers over the past years or so.

One solution to the "brain drain" problem was suggested by the head of economics at the University of the Witwatersrand last month. He called for an upward revision in the salaries of academics to stop the outflow.

Sweden

Board tests effectiveness of reforms

from Colin Narbrough

STOCKHOLM

The National Swedish Board of Universities and Colleges (UHÄ) has started to follow up and evaluate reforms in higher education. The programme consists of six projects, with another three planned.

Together these should cover all the problem areas given high priority by the government, the Riksdag (parliament) and the UHÄ. These are: the organization of higher education, programme funding and planning, activity evaluation, the form and content of higher education and the social effects of the reform.

In the area of higher education organization, a special advisory group has been appointed to draw up guidelines for the evaluation of organization from regional to departmental level. Four regions were chosen for study and a research group in each region organized to plan and coordinate activities under a project director.

A sub-project, studying how decisions at central level are executed within universities and colleges, has been completed this year.

The UHÄ has been instructed to analyse funding in higher education with specific attention to how the boards and committees at different levels plan, budget and audit their activities.

The project on activity evaluation in higher education implies a different kind of followup. The goal of the project is to contribute to increased efficiency and better ability to innovate in higher education by contributing to quantitative and qualitative developments of critical analysis as an integral part of the planning process. The primary intention of this project is to start processes to stimulate activity evaluation on all levels in higher education.

Two important factors are basic to the project: the decentralization of authority that resulted from the reform and the reduction of resource increases to higher education.

There is also a sub-project dealing with the UHÄ's self-evaluation. A special group has been set up within the UHÄ to try to stimulate critical self-analysis and rethinking in the light of the organization's changing roles and duties.

The project dealing with the form and content of higher education started within an evaluation concerning problem and profession-oriented education. Activities have been primarily directed towards different departments within universities and colleges experimenting in this field.

Recurrent education (RE), one of the major principles of the higher education reform, has major effects not only on institutions of higher education but also on the labour market and the individual. The projects dealing with the RE span a wide area of problems.

Investigation of the more far-reaching social effects of the reform require a study over a long period. The follow-up programme is initially concerned with studies which can lead to relatively quick measures to promote the recruitment of new categories of students and social equality.

Other ways to increase the possibility of discovering and illuminating complex causal relationships in higher education reform are projects linking different aspects of reform within one sector.

France

Campus fighting battles with Minister and Mayor

from Guy Neave

PARIS

The controversial University of Paris 8 Vincennes is facing battles on two fronts.

On one hand it has become caught up in a fight between central government and the Paris municipal council. On the other it faces the prospect of having to introduce written examinations under pressure from the Minister for Higher Education, Mme Alice Saunier-Seïté.

On the campus, in the middle of the Bois de Vincennes, was ceded to the university in 1968 on a 10 year lease signed between the municipality of Paris and the state, which expires this autumn.

Over the past two years it has been rumoured that the 11,000 students, 500 teaching staff, and 250 administrators, will be moved out of the city. Last year the Ministry of Higher Education suggested Marne la Vallée, a new town at the end of the new high-speed rail line crossing Paris from west to east.

The reputation of Vincennes is such that the farther from the centre of the city the better, according to many people. The ministry has suggested two possible sites – the old abattoir and meat market at La Villette to the north, or Bercy in the north west, a former dock for coal barges and barrels of wine of dubious quality.

However, these proposals will not come soon enough to stave off the determination of the Paris municipal council prodded by M Jacques Chirac, the city's Mayor, to repossess the site.

By standing up to the government, M Chirac is making much political capital, and Vincennes, supposedly a hotbed of student protest, is an obvious target. The mayor's office is on record as saying that if the university has not moved by October 31, they will start proceedings for repossession.



Mme Saunier-Seïté: press

The second issue, to reduce examinations, is to bring Vincennes in line with other universities. The ministry's Director of University Affairs, M Jacques Vinsonneau, proposed that all third and last undergraduate years have annual and final examinations from the year. All students, with the exception of those working full-time, subject to this discretion. Any part-time student working and having completed two years can do not hold the school certificate, normally required for university entrance in France.

This latter group, claim national students' union, is a hard hit. Recent legislation according back the number of full-time students and the reimposition of examinations is seen as yet another step in forcing out unqualified students, from Vincennes. Similarly, it is another step to undermine the experimental status of the university granted in the aftermath of May 1968.

In an effort at compromise the Education Policy Committee of the university has called on each department to draw up a list of the type of evaluation appropriate to its particular circumstances.

Republic of Ireland

Dismissal judgement reserved

from Paul McGill

DUBLIN

Dublin High Court judge Mr Justice Hamilton has reserved judgment in the case of two former lecturers of Maynooth College who appealed against their dismissal early last year.

The lecturers, both laicized priests, claim they have been the victims of invidious discrimination, but the college trustees, who are all Catholic bishops, claim they acted within their powers.

The action is regarded as an important test case of academic freedom, since the academic and professional competence of the two men—Dr P. J. McGrath and Malachy O'Rourke—has never been questioned.

The charges consist of failing to wear clerical dress, living outside the campus, writing articles prejudical to the teaching authority of the Church and failing to resign office in the college as required by a Papal rescript on laicization.

The issue of academic freedom was stressed by Mr Paddy O'Flynn, president of the Irish Federation of Universities Teachers, of which the dismissed lecturers are members, when he gave evidence on the third day of the four-day hearing.

If IFUT felt the Maynooth statutes were still in operation, the union would have regarded the dismissals "as a clear violation of the accepted standards of academic freedom", he said.

The IFUT has now referred the college's statutes to the Employment Equality Agency under the Employment Equality Act, which was passed in the Republic last year. The statutes require that the college's senior officers shall be priests.

One of the issues involved is the legal status of Maynooth, which is a seminary for the Catholic priesthood and a recognized college of the National University of Ireland, admitting lay as well as clerical students.

This arose on the final day when Mr Justice Hamilton suggested that the trustees were going against a law passed in 1975 by admitting a number of Protestant students.

While the exact relevance of this will not be known until judgment is delivered, it throws doubt on the claim by counsel for the trustees that Maynooth started as a seminary and remains so to this day. The lecturers made the point that they taught only university recognized courses.

The students of Hillcroft have firmly rejected co-education. Maggie Richards reports

The college where women take the driving seat

A vote was taken recently among the all-female population of Hillcroft adult education college on the issue of admitting male students to courses. The result was resounding opposition to the idea of co-education. Hillcroft is the only women's residential adult education institution in Britain and, it seems, that is the way it is going to stay.

To outsiders the verdict may appear either unenlightened or sexist. The students claim it is neither.

They argue that because much of the Hillcroft intake is comprised of women who have reached a barrier in their jobs, they can only compete on equal terms with men by improving their qualifications and by boosting their self-confidence.

There is also concern about the practical problem of persuading husbands to allow their spouses to attend a mixed residential college on a one or two-year course.

College principal Mrs Janet Cockerill reports the strongest feeling from women who have taken a back seat during childhood, at work and in family life.

Discussion about the issue will continue. Former students are equally divided on the subject, and the college is at present making informal enquiries about any problems its fellow institutions have encountered in providing coeducation.

For the moment the absence of male students does not seem to be acting as a disincentive: there is no lack of eager recruits for places at Hillcroft.

Some time ago an article about the college appeared in an issue of *Good Housekeeping*. Copies of the magazine scattered in doctors' surgeries and dentists' waiting rooms still bring in a steady flow of applications. But the college itself does not make strenuous efforts to advertise its courses, and there is no attempt to entice women from the factory bench.

Mrs Cockerill takes the view that women who are ready for Hillcroft *will have already* in some way made an individual attempt to widen their intellectual horizons—by attending evening classes, at a local further education college, taking up WEA courses, or through their trade union.

The college does place advertisements in the quality press. Says Mrs Cockerill: "It is quite true that we do not get the girls who work in factories or shops. But if a woman has no educational qualifications and has reached the stage of reading this type of newspaper, she is already well along the road."

Apart from those applying through newspaper advertisements, more than a quarter of the applicants find their way to Hillcroft as a result of personal recommendations by former students.

Many are office workers or professional women, others are voluntary workers who feel compelled to obtain qualifications to take up full time community work. About two-thirds of the students live in at the college in Surbiton, the remainder are day students.

Minimum age for entry to the college is 21, but the largest student contingent are within the 25 to 35 band, and above 45 the numbers dwindle rapidly, mainly because of declining job prospects and the effect on pension rights. The older students have more than proved their worth to the college, though. One former inmate left Hillcroft at the age of 62 and is now studying at York University.

In terms of schooling, the student population of Hillcroft is almost equally divided between those who attended a grammar school, and those assigned to secondary moderns. Says Mrs Cockerill: "Those from the grammar schools are generally people who left at the earliest possible moment with an inadequate number of O-levels. Sometimes this was due to late development, in other cases there were pressing family needs, and the girls were forced to leave.

"With the girls from secondary modern schools, generally there was no opportunity to take examinations, but they went on to become secretaries rather than going into factory work."

Nearly three-quarters of Hillcroft's students go on to university: the rest go mainly to other sectors of higher education or into professional training. Until the construction of teacher training facilities was cancelled in the late 1960s one third of its students in this direction, now they tend to look for other outlets in the community field.

In almost all instances the motivation stems from career or vocational ambitions. Mrs Cockerill believes the notion that spurred on Hillcroft's pioneers—of women students dedicated to self-improvement for its own sake—is largely a myth.

The principal, who is at present engaged on a painstaking investigation of the college's past in an effort to update the existing history, is full of admiration for the early students: "A lot of these women went back to unemployment and blacklisting because they had been here. Anybody who went away to gain more educational experience and came back with more to say for themselves had a very tough time."

Hillcroft began in 1920 in Beckenham, Kent, with 11 students. Mrs Cockerill thinks the college came into being as the result of the reaction when middle-class women came face to face with their working-class compatriots during the First World War.

The college was fortunate in finding a generous benefactor in Mr Thomas Wall, Quaker and sausage and ice-cream manufacturer. His initial donation of £1,000, followed by a further £500 in the following year, helped establish the college.

Throughout the 1920s and 1930s the college was to be dogged by financial worries, and even as late as 1974 Mrs Cockerill was having to wrestle with the complexities of funding without mandatory grants.

The environment was hardly conducive to sound preparation for university entrance, but many of the students had no such aspirations. Often they returned, unqualified, to take up whatever post in community service they could find. One former student did exceptionally well, and became children's officer for a city in the Midlands.

In November, 1926, the college moved its existing site at Surbiton in order to expand student numbers. But the onset of the depression led to a fall in applications, and only in 1936 did they begin to rise.

In September, 1939, it was decided to close the college for the duration of the war, and the property was leased to the National Bank of Australasia—whose brick-built air-raid shelters, designed to house bullion rather than personnel, are only now being demolished to make way for new extensions at Hillcroft.

For a brief interlude the college resumed its work in a joint operation with Fircroft College at Selly Oak, Birmingham, until German bombers turned their attention on the city and commenced nightly bombardments. The cooperative venture, which had begun so auspiciously just after Christmas of 1939, came to an end in the summer of 1940.

Hopes for a brighter future prompted the Hillcroft council to promote a conference in the autumn of 1943 on post-war adult education for women. Two years later the college resumed its function at its home in Surbiton.

On one aspect of the college's pre-war educational policy, the college authorities were determined: there would be a continuation of the non-accreditation of courses. From its beginning the college had resisted the notion of introducing selective processes for entrants and final examinations.

Increasingly, after her arrival in 1964, Mrs Cockerill became convinced of the validity of introducing final examinations. Not least among her concerns was the demand from higher education institutes for some concrete evidence of the standard Hillcroft students had attained.

Another worry was over the suitability of a one year course for those students aiming at university entrance. Mrs Cockerill says: "From the one-year course only a very small proportion of students were ready to go on to university, and they got in without any difficulties over recognition. But the majority were only beginning to show the necessary qualities, and we had to tell them to continue their studies in part-time evening classes."

There were approaches to London University and Surrey University, but neither proved satisfactory. Explains Mrs Cockerill: "Everybody was comparing us with Ruskin and Plater, with the advantage of a university on their doorstep. In Surbiton there was nothing."

Finally, in 1974 came validation success through an unexpected body—the Council for National Academic Awards. Recalls Mrs Cockerill: "There were no courses below degree level which the CNAA validated, and we did not think they would consider us."

But during a conversation with an acquaintance associated with CNAA she learned the council was empowered to validate courses other than at degree level.

Events began to move at a swift pace: "Everything took off in about three weeks. Edwin Kerr came down and agreed to send a visitation party. We were terrified at the prospect, having never had an inspection before."

The college made its submission, and a party of professors and readers—"not a single woman among them"—descended on Surbiton. Hillcroft emerged victorious, with its own CNAA certificated two year course.

Minor hitches still occur, a few universities have expressed reservations about accepting Hillcroft students. Mrs Cockerill is meticulous in monitoring the acceptance rate —last year certificate holders joined courses at 16 universities and nine polytechnics. Each will now go on to her list as precedents for the future.

Now the battle is on to persuade the professions to recognise Hillcroft's certificate, the most recent victory being a student who has obtained entry to a grade of the civil service previously open only to graduates.

For the future Mrs Cockerill believes the recent proposals put forward by the Department of Education and Science in the consultative document *Higher Education into the 1990s* hold exciting prospects for colleges like Hillcroft.

She feels more opportunities must be made available at a lower level, particularly for ethnic minorities who may require extra coaching before they are able to tackle programmes such as those offered by Hillcroft.

If I regret is that I shall probably have had to retire before a lot of these new proposals come to fruition."

The SF invasion in the guise of a social science

A foundation at a poly aims to raise the the subject above the level of an academic freak show

At least 90 per cent of everything is rubbish, said science fiction writer Theodore Sturgeon in irritable response to continual accusations that most sf was rubbish. And the fact that most scholarship on the subject is equally unsatisfactory is not lost on the organizers of Britain's only sf academic institution, the Science Fiction Foundation at North East London Polytechnic.

In the United States, where colleges and universities are in open competition to attract students, sf is used as a popular topic to create full courses and lectures. As a result many second-rate academics are appointed because they are able to claim some vague interest in the subject. The quality of their scholarly output is generally of as second rate.

But the recently appointed organizers of the foundation, administrator Malcolm Edwards and research fellow David Pringle, believe there is more to science fiction than academic freak shows and they stress that at most levels, it can be used as a valid education-al tool.

They present a variety of propositions. Science fiction is an excellent form of literature which can be used to promote reading in general; it dramatizes issues of contemporary concern; it forms a bridge between the arts and sociology; and it provides an entry into literature worthy of serious intellectual consideration in its own right at universities and colleges.

In this last area, Edwards and Pringle point to the recent serious critical attention which writers such as J. G. Ballard, Brian Aldiss and Ursula Le Guin have attracted. Indeed, Le Guin, author of the anarchist and visionary novel *The Dispossessed*, and member of the foundation's policy council, claims a myriad of intellectual sources for her work—from Henry James to Tolstoy and Dostoevsky to Tolkein. This may be justified but it is debatable whether this intellectual pretention is particularly helpful for a form of literature that is still in its infancy.

The foundation has two main aims: to provide research facilities for those studying science fiction and to investigate the usefulness of the subject as an aid to education. To help researchers, a library of some 10,000 volumes of novels, short-story collections, magazines and critical works has been built up since the institutions inception in 1970. This was recently boosted by one private donation of 800 works—from a retired vicar—which says something about the breadth of sf's appeal if nothing else.

These books are used as reference works for postgraduates studying for theses. "There may only be 20 such students in Britain at the moment but before foundation, the very idea of studying science fiction at all would have been thought ridiculous", added Malcolm Edwards.

These students come from universities throughout Britain together with a few visitors from the United States and also from France where popular culture is taken far more seriously than here.

At the polytechnic itself, students doing the BSc in modern science use science fiction topics as a basis for case studies on science and society. This indicates how the subject managed to creep in as a recognized academic course—through the social sciences, as a sort of halfway point between the arts and science.



From the cover of The Green Brain by Frank Herbert. Illustration from The Visual Encyclopedia of Science Fiction.

Now there are indications that it will spread to the arts. At present, the Council for National Academic Awards is considering a new BA in cultural studies for the polytechnic which would have a science fiction content viewed from its literary aspects.

If that was passed, it would indicate a recognition that science fiction was no longer a trivial literature", added Mr Edwards.

There are also four MPhil students at North East London who are studying for science-fiction related theses: sf and myth; sf and the American dream; sf and metaphors which permeate popular culture; and sf and religious themes.

But there is little indication that the subject would be considered much help as an entry to the study of hard science. "I think the social sciences are the nearest we will ever get and probably the nearest we should ever get", he said.

Apart from helping others do research, David Pringle is working on preparing reading lists for teachers wishing to use sf as a classroom aid. So far, about 370 books have been categorized under about 100 headings, including environment, automation, pollution and many others. Various recommended sf books can then be used as launching pads for children learning general studies topics.

This reflects the interest of many young teachers, raised on a childhood diet of Ray Bradbury and John Wyndham, who are keen to develop sf in this role. For instance, in Lancaster, one group has formed the Teaching SF Society to promote these aims.

But looking forward from these goals, both organizers are rather vague about their plans. David Pringle mentions moves to assess the impact of sf in the classroom while Malcolm Edwards is to concentrate on producing *Foundation*, the centre's own review of science fiction.

This has been published rather haphazardly since the first days of the centre which in turn was the brainchild of sf writer George Hay and other academics who managed to sell the idea to polytechnic director George Bresan, himself a keen sf buff.

The magazine is a peculiar combination of pretentious review and penetrating criticism, the latter usually coming from science fiction writers who are generally more capable of presenting clearly thought out views than academics.

Robin McKie
Science Correspondent



Robot on the cover of *If* June 1954. Illustration from The Visual Encyclopedia of Science Fiction.

West Germany

More arts and social science places proposed for universities

by Günther Kloss

The *Wissenschaftsrat*, West Germany's advisory council for higher education, has agreed on this year's recommendations for university expansion which forms the basis of the annual general buildings programme for institutions of higher education.

The final *Rahmenplan* covers a rolling four-year period and lists all approved higher education building projects throughout the Federal Republic, financed jointly by the federation and the *Länder*. The eighth programme will shortly be agreed by the federation *Länder* planning committee.

The final target of student places, is reaffirmed at 850,000, compared to the present 732,000. This relates to space requirements only—the actual number of students already exceeds 900,000.

By 1982 approximately 800,000 student places will be available, the remaining 40,000 to 50,000 will be provided between 1982 and 1985. The Council maintains this target although the number of first-year students has stabilized since 1974. It believes that the numbers will grow again, if more slowly.

Following tentative suggestions last year, the *Wissenschaftsrat* devotes part of its deliberations to a critical examination of the *Fächerstruktur*, the distribution of places between subject areas. Its recommendations, if accepted in the shape of future building programmes by the planning committee, demonstrate the wide-ranging competence in the field of higher education planning which is now effectively assumed and exercized by this committee.

The *Wissenschaftsrat* says the *Länder* ought to provide more places in arts and social science subjects than envisaged at present (this is a change from the views expressed last year). There ought also to be more places in dentistry, in art and music (provided courses do not solely lead to a school teaching qualification), and in engineering (at advanced technical colleges). But caution is advised in the provision of new university places in science and technology subjects.

The council examines the changing structure of the labour market and its implications for university and college graduates. It takes account of a developing trend which indicates that a university degree no longer necessarily guarantees a well-paid job, carrying responsibility or concerned with research and development. Increasingly a degree will form the basis for jobs for which hitherto a university or college education was not required—a change of much greater impact in Germany where a first degree has been of a higher standard and higher status than in Britain.

While this might offer a chance to provide qualified people for new areas of employment, for example preventive medicine or social work, it will also mean that the initial salary advantage of university graduates over non-graduates will be eroded. This is already happening in industry.

The *Wissenschaftsrat* argues very strongly for a reform of the strict entry requirements and the rigid career structure of the German public service.

It wants to initiate a public debate on such far-reaching changes which it regards as inevitable. It says industry too must undergo changes in attitude and practice.

مكتبة الأصل

Small, independent and making headway

Ngaio Crequer checks on the progress of the University College at Buckingham

Physically, the University College at Buckingham does not look like a university. A former army barracks, piggery and dairy have been converted to form the main administrative headquarters and teaching block. About half a mile away, the college has acquired a former convent which now houses the two language laboratories, one of four libraries and more teaching rooms, and there is plenty of surrounding room to expand in.

The first students graduated this year. They were, according to Professor Max Beloff, the principal, "no better and no worse" than students graduating from other universities.

The fact that they were there at all is no mean achievement. Many openly scoffed at the idea of establishing a privately financed university and many still have their doubts about the value of the Buckingham experiment. But Professor Beloff is not a man given to self-doubt, which is what criticism of Buckingham would amount to.

Nevertheless he realizes the college is still at an experimental stage. At the moment he is trying to get a grant from a private foundation to enable an educationalist to follow through a year's intake and compare Buckingham students with those elsewhere.

The basic problem for the college is one of recognition. The Buckingham Licence is recognized by the Law Society, the Council for Legal Education, the Bar Council, the Institute of Chartered Accountants and the Institute of Bankers, but it makes no headway with the Civil Service Commission, the Ministry of Defence, or any other governmental bodies.

After lengthy negotiations the Council for National Academic Awards ruled that Buckingham could not satisfy accepted degree criteria.

A handful of British universities will accept Buckingham students for postgraduate work. But Professor Beloff has to spend a large part of his time haggling with foreign governments over the value of students' degrees.

"The non-recognition is entirely governmental. We have had no trouble with the academic world. Within 3-5 years we will apply for a Royal Charter, when it will be impossible to refuse us", he says.

The curriculum is much more career orientated, than at other institutions and it is admitted that the principles of consumer demand have guided the choice of subjects.



Professor Max Beloff, principal of the college, with a typical group of students.

There are six schools—Law, Economics, Politics, Economics and Law, History, Politics and English Literature, European Studies, and Accounting and Financial Management. Students must study the life sciences and at least one foreign language.

Two-thirds of all Buckingham students in fact study law. The next growth area, although the school was only set up recently, is accountancy; ten per cent study it now and that figure is likely to increase to 20 per cent. The next new course is likely to be professionally orientated—towards biology and the food and pharmaceutical-based industries.

The lack of postgraduate research, is not, it is claimed, a serious failure. "It is a very modern development. There were few postgraduates in British universities before 1939," says Professor Beloff.

"I do not think the students lose. As for the staff, I would not expect our young members to regard this as a life-time place." The staff, meanwhile, point to the fourth term and say this enables them to keep on top of their subject.

Why would a student prefer Buckingham to anywhere else? Professor Beloff says many come because of the two-year degree course. The academic year begins in February and is divided into four terms of 10 weeks each. Staff are given one term off in four.

It is perhaps unfortunate for Buckingham that the rest of the academic world is coming round to the view that the four year degree course is inevitable. Since it is possibly too early to assess the effect of the extended year on the quality of undergraduate teaching or the student's ability to cope.

"We have only had one output and the examiners thought they were no worse than anywhere else", said Professor Beloff. This view, and that of many of his staff is that not enough work is done at conventional universities.

Student numbers have grown from 80 in 1976, when the college opened its doors, to 230 now. By 1980 it is hoped they will reach 300. Originally an eventual target of 2,500 was the aim but now staff talk in terms of only 500 to 600. There are 30 full-time and 10 to 15 part-time staff.

Fifty per cent of students are foreign, mainly from south-east Asia and west Africa, with a fair sprinkling of Americans. Because Buckingham is a bargain for foreigners, keeping the British contingent up has become a problem. An American can buy two terms for the cost of one and take credits back to US institutions.

A year's study is estimated to cost between £3,250 and £3,700 and though staff laugh off the often made jibe that Buckingham is a playground for the rich they show sensitivity to it.

Funds of £20,000 for bursaries and scholarships are available and 25 students are benefiting from them.

Buckingham is cheaper for foreign students and it is easy to vary the length of time spent on courses. Foreign students say they value, in particular, the close personal tuition. Professor Beloff says, however, that the present staff-student ratio is too "generous" and he hopes eventually to get it down to some think like 1:12.

It has its own admission procedure outside of UCCA. An attempt is made to interview every student, once a prima facie case has been made. The college is trying to build up its interview and testing system for intending overseas student.

Professor Beloff says, "We insist on good A levels, or a good reason why not. We never consciously take a student whom we do not think can get a degree at the end. It is true we take people other universities would not. But we do not take 'wrong' sorts."

One student seemed to think that, rather like Dr Barnardo's famous declaration "no destitute child ever refused admission" an student would be turned away solely on the grounds that he could not afford the fees. Professor Beloff puts it slightly differently—he would not want to turn down a "flyer". But he also points out, the poorer student would not consider applying to the college.

One of the students at Buckingham is an ex-miner, being sponsored by a batteries company. Another is a woman who left school at 14, has went to the college and got a First and is now studying for PhD at Oxford.

Professor Beloff admits the college "takes risks" in admitting such students.

Money from industry and private benefactors now totals £3 million. Without companies like Beecham and Volkswagen which gave £40,000 for the language laboratories, Buckingham would not exist.

Although it suffered several years of deficits at the beginning, it appears to be no shortage now. Its cold or cramped classrooms, its surfeit of wall-to-wall carpeting. The college hopes to bridge the gap between fee income and running expenses within the next two years.

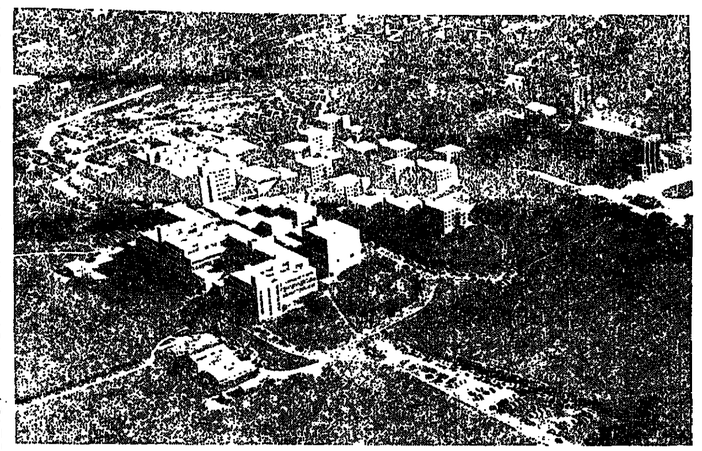
The number of local authorities not required by law to help students but willing to use their discretionary powers, is growing. About 11 including Buckinghamshire, Bedfordshire, Cleveland, Cumbria, Durham, Lincolnshire, Kent and Redbridge, will give grants equal to the mandatory level. The student would be required to find the rest of the money himself or herself.

Whatever the college's financial and academic position may be, one thing that attracts staff to Buckingham, apart from "slightly higher pay rates is the compact size, and the greater chance to get to know the students.

As a law lecturer put it, "We are getting back to the original conception of what a university is. Students cannot get lost here."

Surrey University's attempt to give the older kids a break

Patricia Santinelli reports on a youth education in the community project



An imaginative development in 16-20 education began at Surrey University's adult education department in the early 1970s, long before this area became a major issue.

Surrey's programme for youth education in the community is unknown in other British universities. Each year the programme attracts 3,000-4,000 youngsters from schools, sixth form and other colleges, apprentices, as well as the educationally disadvantaged and the young unemployed.

The decision to begin the adult programme at 16 rather than later is based on a concept of continuing education where this stage represents the first phase in a process taking the individual through his working life and retirement.

Ms Karen Evans who, like most of the department's staff, was chosen for her educational expertise and who has been responsible for the 16-20 programme since 1973, says it is vital that other universities should adopt this approach and investigate this area. "Already more are paying attention to it and it will become accepted as the first phase of adult education", she said.

The department's post compulsory education for 16-20 year olds is particularly concerned with exploring the special needs and problems of those in transition, in particular helping the more able prepare for choices and adjustments in their lives on leaving school or college. Another aspect concerns young adults whose motivation towards work and education is low.

The programme itself is planned by working groups of young people who choose and organize activities in consultation with Karen Evans. This has proved a much more successful approach in helping to widen the range of contacts outside the university simply because events were being publicized by young people rather than teachers.

Most activities are held in the evenings and cover a broad curriculum of science, social sciences and arts with courses devoted to both more general or specific areas.

Students are offered a variety of teaching methods and topics. They can attend a lecture on genetics, a course on creative writing, explore human relations in a workshop, or participate in a residential weekend on the transition from school to work.

For those interested in higher education, the department is holding a conference on "going to university" next month. Last year it attracted around 1,300 students.

The department has found that it sometimes achieves better educational results than normal courses, simply because young people are being treated as adults and participation is voluntary.

Ms Evans says that most students come from middle class backgrounds, representing the usual balance of people who take up adult education opportunities. In this case there is a higher proportion of sixth formers and civil service college students than apprentices or young unemployed.

Yet she has found it difficult to compare their ability effectively with those of their peer group on regular courses at the university: "The only real assessment is the enthusiastic response of the university's academics who teach most of the programme. They very often describe these young people as surprisingly exciting and stimulating."

The students' attitude may be partly due to the great efforts the department has made to keep in touch with anyone who has ever participated. Young people are regularly informed of what is happening, so that if they come back there is a much higher level of involvement which, Ms Evans believes, is of great value.

Naturally, part of the process is to encourage youngsters to go on to adult groups so that they can continue their education. There is little mixing between the younger and older students except as in the case of one youngster who put on a series of talks on conservation to which both groups were invited.

Special exercises such as a pilot project with the careers service on the kind of provision which could be developed for the young unemployed, are also part of the 16 to 20 programme. This was not an attempt by the department to see what impact it could make on youth unemployment but rather was intended to become a special programme which the careers service could take into schools.

Next year's programme has involved setting up a working party to look at the educationally disadvantaged, including unemployed youngsters in Surrey, to see what contribution the university can make.

"Basically they will be looking at why the university is less attractive to these youngsters and at what can be done to remove the barriers. They exist because too often young people do not think the university is for them" Ms Evans said.

Direct involvement with young people has led her to some interesting research projects. At the moment she is looking at young unamed workers, to see what sort of educational development opportunities are available to them, and the extent to which they are involved in the youth service.

Already a completed pilot project has identified some emerging patterns, in particular the gap in provision for the 18-20 group. For these young people the youth service has very little to offer and very often their own organized activities have a low educational level.

Another area of research has been the sort of questions sixth formers are likely to ask on higher education and what they really want to know. Ms Evans is examining how well the conference on "Going to university" answers their needs.

Still in the planning stage is an examination of European provision on post-16 education with, later, a comparative study of British and European activities in this area. The department has formed links with the European Centre for the Development of Vocational Training in Berlin for this purpose.

Educating the educators forms an important and related sector. Teachers come from the youth service, further education and industry, sixth form colleges and professional education.

Some of these student teachers are doing special projects related to 16 to 19 education as part of their MSc. One is looking at the implications of the Holland Report, in particular how the Careers Service is coping with the Youth Opportunities Programme. Others are looking at the N and E proposals and implications on the school curriculum.

Perhaps not surprisingly, Ms Evans is not thinking of changing her job in the near future. She is too interested in seeing that a course for teachers and youth and educators, off the planning stage, as well as increasing and developing her European contacts.

She hopes that by that time what she regards as the only failure of the programme, the insufficient attraction of the university for the educationally disadvantaged, will have been remedied, whilst its major success, high motivation of young people, will still be a fundamental part.

29 different ways of teaching economics

Lecturers who want to devise the most effective teaching programmes for their students are often hampered by having little knowledge about the way other universities organize similar courses. An unusual survey published by the University of Nottingham last month looks in detail at the way students are taught in 29 university economics departments.

"Each university and each department within that university is permitted substantial freedom in its interpretation of the curriculum of any particular subject and of the way in which that subject ought to be taught", says the author, David Whynes. "Given this tradition of academic freedom and lack of centralised direction, it is often the case that teachers in particular institutions are unaware of the teaching methods adopted by colleagues elsewhere in the higher education system, unless recourse is had to casual empiricism or personal contact."

Although a survey of the practices of various departments cannot provide a "recipe" for the best type of course, he says, information about alternative ways of arranging economics courses can help teachers assess the efficiency of their own methods.

In January this year a survey was sent to the heads of 50 departments in universities and university-related institutions where economics is taught as a main honours degree subject, or as a subsidiary or joint honours subject. In all, 29 completed questionnaires were received, detailing the number of lectures, tutorials and seminar classes given to students, and the arrangements for written work and projects.

"The structure of the final sample of 29 approximated well to that of the UK university system as a whole. Both the older universities (such as York, Sussex and Essex) were well represented, as were the redbricks (such as Nottingham, Newcastle and Bristol). The sample also included most of the economics departments of the Scottish and Welsh universities. The colleges of Oxford and Cambridge were, however, deliberately excluded.

"The results of the survey are produced in the two tables. But it is important to bear in mind that six universities in the sample run a four-year degree course instead of the more common three year pattern. In these cases the data for the first two years were grouped together to become equivalent to the first year of a three-year course.

Table one shows the average number of contact hours received by each economics student per week. Tutorials include all forms of non-lecture teacher contact such as seminars and problem-solving groups. Table two gives an average of contact hours through the academic year, taking into account the different lengths of term at each university.

Table 1
Average contact hours per week

Year	Hons.-Joint Hons.	Lectures	Tutorials	Total
First		4.2 (3.6)	1.8 (1.6)	6.0 (5.2)
Second	Hons.	6.0	2.3	8.3
Third	Hons.	3.8	1.4	9.2
First	Joint	4.7	1.5	7.2
		(2.4)	(1.1)	(4.4)
Second	Joint	4.1	1.6	5.9
Third	Joint	4.9	1.7	5.6

Table 2
Average contact hours per academic year

Year	Honours	Joint/Subsid.
First	148.9 (113.2)	126.4 (85.1)
Second	209.0	151.2
Third	223.1	135.1
TOTAL	581.0 (565.3)	412.7 (371.4)

Note: Figures in brackets are averages for the sample excluding those universities with a four year degree

The information gathered on the amount of written work is not dealt with statistically in the report because of the wide variety of short and extended essays, seminar papers and projects that are produced in different departments and because of the different emphasis placed on written work by individual departments and individual lecturers.

Nevertheless, the survey revealed that most departments expected an average of one piece of written work every week or every fortnight. "It also appears that there is a slight decline in the number of pieces of written work set during the students' three years, although this is complemented by the fact that the scale of working progressively increases, and students are expected to write longer essays, with less supervision and requiring more independent research."

The assignment of written work, the survey shows, is generally integrated within the tutorial programme. Departments which ask for a lot of written work do not necessarily provide a larger number of tutorials, but the additional comments on the survey replies suggested that many departments regard students' prepared work as the focus for subsequent tutorial discussion. The use of problems and examples classes is generally restricted to departments which use a substantial amount of mathematics in economics teaching.

In most departments students are expected to produce a project in the second or third year which is used as part of their final assessment.

The author identifies a dozen distinct types of teaching method used in economics department, ranging from formal and informal lectures to one-to-one tutorials, computer-based programmed learning schemes and specific reading requirements.

From these, he says, it is possible to build up a picture of the kind of teaching approach adopted by different universities. The programmes can be categorized in two ways—by whether they are "teacher-dominant" or "student-dominant", and by whether they are "supply-determined" or "demand-determined".

A typical teacher-dominant approach is the use of the formal lecture, where a student-dominant approach could entail the preparation by the student of a self-independently-researched dissertation. Under supply-determined regimes all students are obliged to pursue particular pieces of work, whereas under demand-determined regimes only students who express a desire for tuition receive it.

The pattern, he says, is for new universities and those which are experimenting with new methods to move from the traditional teacher-dominated, supply-determined approach to a student-dominant demand-determined approach.

The report concludes: "A move from dominated/demand-determined system can often be designed to possess the, to many, desirable features of permitting substantial economies in the labour input of teachers. Accordingly suggest that this trend might be seen as a reaction to the recent deterioration in staff-student ratios."

Peter David

This time funding change may go smoothly

John O'Leary tests the calm around proposed changes in student union funding

It is a sign of the times in student politics that Government proposals to alter the funding arrangements for student unions have been received so calmly. The tender issue of autonomy remains in the background, the need for public accountability is widely accepted and the prospects for a relatively painless settlement seem surprisingly good.

Now for the whole debate is removed from the heady days of 1971 when the issue galvanized student Labour and Conservative proposals for a new system had to be dropped. Such is the atmosphere of rational discussion that the first collegiate debate on the proposals in the student movement came only last week and then at a briefing conference. Policy decisions are to be left until the autumn at the earliest and the waves of protest which might have been expected are unlikely to materialize.

The other interested parties are also at the discussion stage, but few major objections to their proposals now roles have been forthcoming so far. Even the target date of 1979 for implementing the proposals seems feasible if a general election does not bring a shift in policy. The Conservative party has not discussed the proposals but could be expected to allow the discussions to run their course if it looks to win power, with other issues taking priority.

Dr Keith Hampson, vice-chairman of the Conservatives' education committee, said: "There has been no formal assessment of the scheme, but I think in general terms it is to be welcomed. The party has said there must be more accountability and this is certainly much better than what we have now.

"Student union financing is not a central policy issue. It is something we would have to deal with in government, obviously, but it is not something which I think the opposition must concern itself with too much."

The students' attitude, still to be officially formulated, will be the other crucial factor in deciding whether the DES plans have a speedy passage. Although all the major political groups have their own reservations about particular aspects, only the far Left rejects the package totally.

The basis of the DES proposal is a guaranteed union fee for all students between agreed minimum and maximum figures. Above the maximum, individual unions would negotiate a subvention with their institutions to take account of particular needs, with the institutions receiving a block grant and then at a briefing conference. Policy decisions are to be left until the autumn at the earliest and the waves of protest which might have been expected are unlikely to materialize.

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The new proposals have no bearing on the issue because it has been conceded that the unions' own constitutions are sufficiently limiting for further controls to be unnecessary, but suspicions linger on that any change in the present arrangements must mean an attack.

Although important features of the 1971 proposals, such as the appointment of a registrar of student unions and the opportunity to opt out of membership, have disappeared, some see the basic aim of greater control as similar in the latest plans.

Mr Alan Beith, the Liberal's spokesman on education, for instance, said: "The main worry I have is that it puts the matter so much in the hands of government that an incoming government that decided it was fed up with students would have it in its power to squeeze unions. I am surprised that aspect does not worry the NUS."

Mr William Van Straubenzee, the architect of the 1971 scheme, said: "It seems to me that these are the Tory proposals revamped and, as such, I naturally wish them well. In politics, timing is all-important and quite clearly in 1978 the student climate of opinion is far more receptive to such proposals than in 1971. However, I do actually believe that the vice-chancellors are deceiving themselves if they imagine that there can be annual settlements without some pretty hard bargaining."

He added that the issue of ultra vires payments was less urgent now that few student unions had surplus money available to send to political groups even if they wanted to. An NUS briefing document, however, reasserts the view that the 1971 proposals were an attack on the autonomy of student unions, but that the current scheme is concerned merely with public accountability.

Yet she has found it difficult to compare their ability effectively with those of their peer group on regular courses at the university: "The only real assessment is the enthusiastic response of the university's academics who teach most of the programme. They very often describe these young people as surprisingly exciting and stimulating."

The students' attitude may be partly due to the great efforts the department has made to keep in touch with anyone who has ever participated. Young people are regularly informed of what is happening, so that if they come back there is a much higher level of involvement which, Ms Evans believes, is of great value.

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She hopes that by that time what she regards as the only failure of the programme, the insufficient attraction of the university for the educationally disadvantaged, will have been remedied, whilst its major success, high motivation of young people, will still be a fundamental part.

A refusal to submit to scrutiny of the way public money is spent would pave wide an open invitation for criticism which would be difficult to resist. The proposal adopted by the union at its Easter conference was for an "autonomy charter", conceding the principle of accountability in exchange for the right to spend public money on anything within their own constitutions.

The union executive', doubts lie mostly in the detailed implementation of the proposals. The timing of local authority budgets may cause problems and there will inevitably be argument over the maximum and maximum figures in the guaranteed grant.

Mr David Bethel, chairman of the Committee of Directors of Polytechnics, is one concerned about the suggested £15 maximum while welcoming the general tenor of the proposals. Like the local authorities, he supports the principle of greater control by the institutions which are to authorize the expenditure. The Council of Local Education Authorities will make its submission next month.

A number of obstacles remain, not least the possibility that rank and file students may not share the confidence of their leaders. Bristol University union, for example, is one which fears increased governmental control and will urge that the national union should campaign for the proposals to be dropped.

If the scheme is accepted in the relaxed manner which has prevailed up to now, the DES will have pulled off a diplomatic coup which would have seemed impossible only a short time ago. Officials maintain an air of confidence, still expecting the proposals to be implemented for the 1979-80 academic year and perhaps hardly believing how smoothly it is going.

Medical cuckoo in the nest?

The possession of a medical faculty is one of the status symbols of universities. Those who are without a medical faculty strive to acquire one, yet a medical school differs from other faculties in many important respects.

Its student intake is subject to the nation's manpower requirements, and is ultimately determined not by the UGC but by the Department of Health and Social Security. The *standards* for its course are set by a single national body, the General Medical Council. Responsibility for the provision of its resources is divided between two different government departments. A large part of the teaching is carried out by part-time staff who receive no extra pay for their teaching duties, and who are not even employed by the university. Many of those members of the teaching staff who are paid by the university are paid on different salary scales from the rest of the university and the basis of their remuneration is alien to the university ethos.

The subject taught by the medical faculty has a public and political appeal above all other subjects, and medical teachers are not slow to exploit this fact. It is small wonder that those universities who already have a medical faculty sometimes regret their acquisition of this voracious and ungrateful offspring.

Only recently has the responsibility for medical education been taken entirely away from the DHSS and given to the Department of Education. Although outside London, each medical school was part of a university from an earlier date, until 1948 all the London medical schools (which trained nearly half the nation's doctors) were constituent parts of one or other voluntary hospital.

Only since the inception of the Health Service have the London medical schools become constitutionally separated from their parent teaching hospitals and established as independent schools within a federal university. Nevertheless, although constitutionally parts of London University they are geographically isolated from other faculties and many feel emotionally more allied to the associated teaching hospital than to the parent university.

The division of financial responsibility for medical education between the DES and the DHSS has always presented difficulties. The present agreement between the two departments dates from 1948 and covers only part of the area of overlap. Under this agreement, the DHSS is responsible for providing the clinical facilities (which in practice means a functioning hospital, fully staffed with nurses and all the other supporting staff) needed for teaching medical students, and for paying the whole salaries of those clinical doctors who work in the hospital and are employed by a health authority.

These doctors (both consultants and junior staff) have a responsibility for looking after patients and for teaching medical students, and the health authority may not reclaim any part of their salary from the medical school in respect of their clinical teaching. The university (or in London, the medical school) also employs doctors who look after patients, teach and carry out research, and it may not reclaim from the health authority any part of their salary in respect of the clinical work they do. This agreement covers only the clinical services and not the pathological services, for which many different patterns of local agreement exist.

As a result of these local agreements in some cases the university is subsidising the health service and in others the reverse is the case. The result of the agreements (both national and local) is that a substantial part of the costs of medical education is borne by the DHSS, and a significant proportion of the costs of clinical services in teaching districts is borne by universities. It is not known whether these two reciprocal costs balance each other.

The direct involvement by the university in providing a clinical service (through the clinical staff employed by the university) is the cause of many of the difficulties between medical and other faculties. Because clinical staff employed by universities work in the same wards, out-patients departments and laboratories as their health service colleagues, they have claimed (and been awarded) comparable rates of pay, and university clinical salaries are now linked to health service salaries. Because university clinical staff provide a clinical service, when one leaves, unless patients are to suffer, he must be replaced; clinical departments have therefore suffered less freezing of posts in times of financial stringency, and faculties other than medicine have borne the brunt of economies in academic staffing. Because of the two foregoing factors, in many Universities both the relative and the absolute costs of the medical faculty have risen at a time when real expenditure in the rest of the university has fallen.

The close link between clinical salaries in universities and in the health service has introduced a new and (to many) unwelcome element in university remuneration. Junior doctors in the health service have in the past few years won substantial increases of pay for "out-of-hours" works which differs from overtime pay only in terminology. Junior clinical doctors in university service have won the same concessions. The example set by junior doctors may yet be followed by consultants, who are negotiating a contract under which their earnings would be related to the hours they work for the health service. If NHS consultants succeed in their aim, can the same be denied to honorary consultants employed by universities?

Nowhere have these stresses and strains been more severe than in universities with new or expanding medical schools. The introduction of new clinical departments or the expansion of existing ones cannot necessarily be timed to coincide with the growth of student numbers. Instead, these must be timed to coincide with the availability of clinical facilities, either because a health service consultant has retired, or because new hospital buildings are available and must be staffed. If the UGC has not been able to provide the necessary additional funds at the right time, the medical school has had to request the university to give it special priority for its new development on the grounds that if the opportunity is missed it may not recur for a decade or more.

Not only have the new and expanding medical schools been able to claim additional recurrent funds at a time when other faculties have had to retrench but they have received special priority in major capital grants for constructing and equipping new buildings. Even when the main UGC capital building programme has been reduced almost to nil, substantial funds from the UGC's medical sub-head have found their way into new buildings whose timing is linked to a hospital development programme. These new buildings have required new equipment, and other faculties have seen their clinical colleagues re-equipped and rehoused in a new clinical department within a new teaching hospital at a time when they themselves remain ill-equipped and out-of-date laboratories.

When faced with such difficulties, it is tempting for staff in non-medical faculties to consider transferring from university to health authority the responsibility for providing the clinical part of the course; or even of transferring responsibility for the whole medical course.

Any temptation to separate medical schools from the rest of the university system should, however, be strongly resisted by both. Medicine is both a craft and an applied science which is a university discipline as much as many other applied sciences.

A large proportion of the advances in medicine have sprung from both basic and applied research in preclinical and clinical departments of universities. To move medical education from its natural place in a university would be to impoverish it, and to stunt future developments in medical practice. The university system would itself suffer from such a separation.

Robert Lowe

The author is dean of St George's Hospital Medical School. This is the second in a series of three articles.

Andrew Gurr reviews the Royal Shakespeare Company's Coriolanus brought from last year's repertory at Stratford to the Aldwych

A production that does more for Shakespeare than for actors

Coriolanus can all too easily work like a piece of litmus paper, turning red or blue depending on which side its director and its audience take in the story of two-party political shenanigans. Over the years it has been produced with every shade of political tinting. There is plenty in the text to focus our sympathy on either side and make the tinting plausible. The patrician senators direct the affairs of the city-state in war and peace alertly and efficiently. The citizen plebs feel exploited and hungry, so they defend their threatened rights and bellies.

Shakespeare gives us a wonderfully raw picture of small-town politics. His Rome is young and insecure, in its earliest days as a republic after everyone combined to expel the tyrant kings, surrounded by threatening neighbours and struggling to cope with the problems of a new system of government. Each political crisis brings everyone to the market place to argue it out. They all accept in theory that the state is a united single organism while disproving it in practice. The question is not so much which side is right as how far can either side push its interests before the city is driven to "cleave in the midst and perish".

Coriolanus himself, the pig in the middle, is less liable to change colour depending on which side he's inspected from. To the patricians he is valiant, to the citizens he's proud and arrogant, useful in war but dangerous in peace. The trouble is precisely that he won't change.

Both sides are always trying to give him new names—Coriolanus, consul, traitor, boy of tears—and getting him to play the role which fits the name. It is because he is the only figure in the play who is consistently and honestly himself, and cannot play the roles he is cast for, that he becomes a political issue, and is sacrificed to save the city from cleaving in the midst. So, as himself, the martial Gaius, he ought to be the one clear and constant figure in the flux of political doings and feelings.

The RSC has now brought its very successful *Coriolanus* from last year's Stratford repertory to the Aldwych. They have done four productions of *Coriolanus* in the past twenty years, from a variety of political colourings, and for my money this one is the best of them all. Terry Hands's production is as carefully neutral as litmus paper can be. It handsomely endorses Coleridge's claim that the play shows the "undoubting philosophic impartiality" of Shakespeare's politics. He has avoided the temptation to guy either party.

On the one side he gives us not comic citizens but honest tradesmen, their leaders more like earnest trade unionists than plotting demagogues. The other side bears itself with authority rather than arrogance: men born to rule, but to rule in the interests of propriety rather than property. And he gives us the play in three sections divided so as to emphasize the way in which the plain personality of Coriolanus becomes a political issue.

The first part runs from the initial quarrel between the two sides to the battle at Corioli, and the accolade which gets Coriolanus the first of his new names. The second and longest part starts among the parliamentary benches and ends in the market place, while the political dispute over Coriolanus simmers, boils over, scalds everyone and pushes Coriolanus off into banishment. In the final movement he teams up with Rome's enemies for revenge, is stopped by his family and is killed when he returns to the enemies, towards whose cause he has thus turned traitor.

The political struggle in the second section is by far the best part of Hands's production. It looks right, from the blue leather-covered benches ranged opposite one another hinting at a two-party parliamentary chamber, to the succession of what some of us like to call confrontation situations, in which however petty-minded the participants may be they none the less sound convinced and convincing of the seriousness of what they are doing.

Coriolanus is one of Shakespeare's more realistic plays. No ghosts, no spectacles, only a bit of bloodshed and a fine spray of political spittle. Rather regrettably, the bloodshed in Hands's production is not particularly realistic. There is not much sweat, let alone blood,



Julian Glover (Tullus Anfidius) and Alan Howard (Coriolanus) in one of the "stylised" fight scenes from the production.

> "Terry Hand's production is as carefully neutral as litmus paper can be. He has avoided the temptation to guy either party"

because the fights are stylized, only three or four half-swords right ill disposed. What is splendidly realistic is the political stuff in the middle: well acted, well moved, and wholly convincing. Hands obviously sees the play as centred on this—the programme quotes political philosophers from Aristotle (two), Hooker, Montaigne and Machiavelli, five generalizations against only one quotation (from Yeats) relating to the "tragic hero" facing death.

The curious thing about this focus on the political mayhem, even though it pins Coriolanus himself firmly at the bottom of the scrum, is how it seems to minimize the personalities who are struggling together. On stage everyone is always shouting at everyone else in an undifferentiated uproar. I felt for Menenius, who at one point pleads "Peace, peace, be not so loud"—though it did not stop him shouting as much as the rest.

Insults are delivered with the edge, not the point, and the se is a regrettable sameness. Vi nia has more weight than pa ality, Graham Crowden's Me is never sure whether he is or she, the tribunes are pallid. Howard as Coriolanus is potent monotonous. The one momen the whole show when he was a shock—it seemed mo torily as if he was going to pandying his own cunt fustian. then, the production demanded sameness from him.

Its mechanics are wonderf right. The set is beefy, uncluttere with thick walls and huge ga gates, the lighting and music (crectly right. The senators just such like the House Lords in their fancy dress, the bunes wear mufflers and hats muscovites, Coriolanus never his senatorial cloak more than way over his soldier's jerkin. T verse likewise gets the RSC's customary spit and polish, speeches scrupulously tooting ev in prose, where more abbreviations would have allow by in a less fussy ensemble. detail of the production, clean and uncluttered as an open stage full of uncalibrated politicians, strengthened the focus on the flux of political circumstance which pushes Coriolanus to his banishment and his death.

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The author is a professor of English at Reading University.

Professor Alec Ross, arguing that lecturers are performers, seeks ways to improve the performance

The lecture theatre is a world of entertainment





Whether it or not, the lecture is the most frequently used mode of teaching in higher education. We call ourselves "lecturers" (though we say "I'm teaching at four") and our courses are usually described in terms of the numbers of lectures to be delivered. Despite the bad press the lecture is the preferred mode of teaching. Dons are wordy people and most of them take easily to addressing a captive audience for an hour at a time.

The less confident find security in standing behind a protective desk with a lectern to hold on to and with a blackboard reredos behind. The "high altar of dogmatic instruction" as it has been called can be even more impressive when the lecturer (the celebrant ?) is wearing the appropriate vestments; the audience (congregation?) is supposedly suitably respectful of the sacred words emanating from the priest who dominates the proceedings. If only it were so!

There can be no doubt that the public image of the teacher in higher education is of an unworldly bookie giving a formal lecture. My father had a hand in the production of a recently published set of nine handbooks, produced by the School of Education at the University of Lancaster, designed to introduce the tyro lecturer to the fundamentals of teaching in higher education. The series consists of ten books on lecturing, four on small group teaching, and three on aspects of assessment.

When, however, the lecturer is still giving "the old one-two" in the final year of an honours course, there may be a danger that the level has been misjudged. At that stage the students should be capable of imposing their own pattern upon the material and the lecturer should by then have moved into a different position, that of inspirer, producer, commentator, irritant, instigator and sounding board. Good students will rise to this; less able students will still be looking for "good notes" capable of being memorised and reproduced when the bell rings.

It is for reasons such as the above that the technique of having students fill in questionnaires about the effectiveness of the teaching they receive has to be used with discretion. The lecture which leaves the audience partly puzzled has its place as well as the one that ties up all the ends so satisfyingly.

Two further points must now be made; firstly the lecture will vary in its style according to the level (e.g first year as against final year of an honours course) at which it is pitched and secondly the lecture must be seen as one of a series of teaching encounters of different kinds.

On the first point it is obvious that simplifying in the first year will tend towards over-simplifying; it is equally obvious that over-simplifying in the final year of an honours course (always assuming that we are not discussing that form of degree in which honours are achieved by adding more of the existing units) *is la trahison des clercs*.

The most important part of the preparation of a lecture lies in the selection of material, ordering it into a coherent, logical sequence, and then relating it to the rest of the field. The scholar's training helps him to do this; if he is to make his or her students into scholars he must enable them to develop and to practise those same skills. It is right that in the earliest stages the lecturer should be imposing patterns, pointing out correlations, shaping what would otherwise be inchoate, ordering what appears to be random, bringing order into what was at first sight chaos.

Good teaching has an element of teacher-withdrawal within it; the successful teacher ultimately renders himself or herself superfluous for by the end of the course the student should be in possession of the skill; which the lecturer has deployed to good purpose. The first year lecture will have plenty of "flags" pointing the way; the final year lecture should be much less directive, much more speculative with plenty of "see what you can make of it" about.

Given the difficulties faced in this area covered the distribution attention seemed to be not unsensible. Yet the media hooked on to the lecturing booklets despite the attempts of the comp to draw attention to the other covered kept firmly to lec This was what would inter the public.

This was responsible representa for the communications industry a mere particular interest. Somewhere there must be a com bookie, lokebook about lecturers talk off platforms, forgot to turn or take on their cough sweets, Spanish ships" clearly demonstrate their sobriety but spread disease by droplet infection, drop their un-numbered on the floor and then, as usual, avant-garde, loose-leaf out any page which to hand, forget to put their shirt on—nothing is too to be regarded as unlikely occurred.

One suspects that generations, of students, taught to respect the have embroidered their stor absurdity. This was what the North American radio network hav wanted—good stories. A set up an expensive trans-Atlan line, "tell us some of the peculiar things that lecturers do", the lady detail of the Ph.D. nor the Baroque decoration of the learned paper. It need not be Stalinist brutal but it should have a directness, unambiguity and a functional purposiveness typical of modern industrial and engineering design.

The lecture has a particular, clearly defined job to do; it should do that job (and only that job) in as efficient a way as possible. The problem becomes, therefore, one of what to leave out and not what to put in and, as designers know, simplicity is harder to achieve than complexity. Some lecturers find that the act of reducing the complexity of truth about a subject to the four or five points, headed and tabled, which is all that the lecture format permits, does violence to their idea of truth: "he who simplifies, simply lies."

The art is to establish the main categories but to indicate no less firmly the points at which additions, refinements, alternative formulations, embellishments and caveats can be inserted. The good lecture is thus less the unequivocal statement of a case and more a guide to the cases that can be made. The power of the didactic setting of the lecture makes it all the more necessary for the lecturer to retain sufficient humility to point out from time to time that interpretations other than the one presented are possible.

Students rate highly well-organized lectures which produce "good notes". In this case, as in other forms of communication, "the old one-two" works really well. The student is, of course, seeking out the structure behind the lecture and seizes upon tabulated points. The late G. J. Renier who taught Dutch history so successfully at University College London, used to declare "There are three points . . ." but having given the first would say "There isn't a two or a three. I merely wanted to be sure that you made a note of that point."

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Unfortunately the rigorous selection system which produces the lecturer has probably eliminated many of those for whom the actor's style comes naturally. Most of us have to learn how to be more extroverted than we would wish and it may be that the tension which the newly-appointed lecturer feels is in part due to this effort to behave in a style other than that which comes naturally. At worst this tension is avoided by refusing to adopt the new rôle.

Safety is found in doing what the lecturer's recent training *has* prepared him for, but there is a great difference between a paper and delivering a lecture and the one should not be substituted for the other.

It may take years of training to produce a scholar worthy to be appointed to a post in higher education. That training will not have included instruction on how to teach but it is not suggested that this too needs years of training.

Given the scholarly training already received, given that the individual is not one of those who find it impossible to adapt their ways to those of the teacher, it need not take long for the average performer to learn the fundamentals of the new craft and thus by practice to build upon those fundamentals. It is irresponsible not to provide the beginner with opportunities to acquire the skills; it is foolish to exaggerate the difficulty of developing the teaching aspect of the scholar-teacher's rôle.

The lecture is the occasion upon which the teacher is most exposed. Though much can be said on personal characteristics such as voice, posture, gesture, mannerisms and the like, far more has to be said and practised on the construction of the lecture. There is a little unlearning to be done for the lecture is not constructed like a paper for a learned society or a chapter in a thesis. In my conception there is no place for the Gothic

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also a growing literature on the subject. Fortunately, lecturers are themselves a highly intelligent group capable of modifying their behaviour quite quickly. Talks and handbooks can give the gist of what can usefully be passed on about lecturing.

Probably the most effective way of helping an individual to improve as a lecturer is to provide a facility whereby an individual lecturer is provided with a videotape of his or her typical lecturing performance. This can be studied in private.

It is odious to have a well-meaning, "I'm-here-to-help-you", possibly patronizing, mentor there to point out the obvious—that the blackboard looked mess at the end of the lecture, that bi-foculs might be considered, that the ends of sentences (wherein the point is often to be found) almost always have a dying fall and are often indistinctly heard, that the top of the head is less compelling than the face and so forth.

Any college, university or polytechnic purporting to take teaching seriously should provide a facility whereby a lecturer can have his or her actual performance video-taped and presented for private viewing. If the lecturer is wise and brave enough she or he will not nominate a well-prepared set-piece but will say, "Any Thursday you like at 0900."

Such a video-tape, until "wiped", should be the personal property and under the complete control of the individual concerned. In particular, it should not be used as part of the assessment of teaching ability which for promotion and tenure committees have to make. If such committees need to have such evidence they should seek material produced for that purpose. It follows that units set up to provide help to those who wish to improve their lecturing skills should not be used for assessment purposes.

The videotape will show what might be called the histrionics of the lecture; it will not adequately show how some of the accompaniments are used. "Handouts", as they are called are often an essential part of the lecture in many of today's departments, the duplicators run hot and the photocopiers tick away like metronomes as heads of department try to keep ever-rising costs down. Book-lists, sheets of quotations, summaries, outlines, collections of data, work sheets, essay titles with appropriate reading, definitions, diagrams, additional material not in the lecture—all this and much else can appear in handouts and form an essential part of the lecture.

The videotape will show how the lecturer uses the various aids, optical, graphic, audio and models to illustrate his message. It is here that timely preparation pays off; the lecturer who lurches, from week to week will never be far enough ahead in his planning to use these aids effectively. At times they are not aids at all but the only effective way of communicating the information.

It is easy to "knock" the lecture; Darwin's judgment on his second-year lectures in geology and zoology at Edinburgh is typical of the quotations which can be made: "The sole effect they produced on me was the determination never in so long as I lived to read a book on geology or in any way to study the science." But the lecture need not be dull and uninteresting; embellished with aids or delivered with panache it can become lively and even compelling.

The young lecturer who starts his career today is not left without advice. Most institutions have induction programmes and either provide or patronize longer courses of training in the basic techniques. There is



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The first question posed by the Department of Education and Science in its discussion document "Higher Education into the 1990s" was this: are the projections of student numbers based on reasonable assumptions? As is well known these assumptions led the DES to postulate a "hump" in numbers of 18 year olds seeking entry to higher education institutions in the 1980s, followed by a sharp "fall" in these numbers in the 1990s. Most of the discussion that has followed the publication of the DES paper in February has considered which of the Models A to E, proposed for dealing with the "hump" and the "fall", should be favoured. Little has been written questioning the existence of these two projections and they are in danger of being taken for granted. Before they enter the mythology of higher education, it is worth asking that first question: how reasonable are the DES projections of student numbers?

Roland Dobbs



Steady-state is only reasonable prediction

I propose to examine the projections of both qualified leavers, that is those defined by the DES as possessing either two or more A levels or three or more Scottish H Grades, and of the home entrants into higher education in Great Britain aged under 21. The numbers from the DES paper are shown in the two charts. Chart I shows the percentage of 18 year olds who were qualified leavers from 1960-61 to 1976-77 and also the percentage of 18 year olds who entered higher education each year, called the age participation rate (APR) by the DES.

The known statistics show two important features. First, from 1960 to 1970 the proportion of the age group who were qualified leavers (+) rose dramatically from 6.2 per cent in 1960-61 to 13.8 per cent in 1970-71. At the same time the rapid expansion of higher education institutions, the founding of new universities and the establishment of most of the polytechnics took place, so that the whole of this rapid increase was absorbed into the higher education system. The APR rose from 6.9 per cent in 1960-61 to 13.8 per cent in 1970-71 and the Robbins principle was fulfilled.

Then in 1971-72 a new feature began to appear. The number of qualified leavers started to *exceed* the number entering higher education. From 1972 to 1977 the percentage entering higher education has actually fallen from a peak of 14.2 per cent to a minimum of 13 per cent, while the percentage of qualified leavers has stayed roughly steady at its 1972 figure of 14.5 per cent.

Before discussing why this might have happened, let us look at chart II. This chart shows the total number of 18 year olds (in thousands) who were qualified leavers (+) and who entered higher education institutions (●). Clearly from 1960-70 when the percentages were the same, the numbers were also the same, so that all who qualified not only got in, but chose to go into higher education.

After 1970 we see that the secondary schools have responded well to the increasing number of 18 year olds in the population and the total number of qualified leavers has continued to rise from 102,400 in 1970 to 115,300 in 1975 and, provisionally, 122,200 in 1976. But the total number entering higher education has *not increased* since 1971. It has remained constant at 106,000 within 1 per cent, for six years, despite the substantial rise in qualified leavers.

This is an astonishing fact, which must be accounted for before any reasonable projections can be made into the 1980s, let alone the 1990s. It appears to have been ignored or minimised in the DES document, so it is worth repeating exactly what has happened.

From 1970 to 1976 the number of 18 year olds in the population in Great Britain increased by 78,000 from 744,000 to 822,000, of these the number of qualified leavers increased by about 20,000 from 102,400 in 1970, but the number entering higher education in 1976 at 107,200 was only 1,300 more than in 1971.

So far as the higher education institutions are concerned, the numbers participating have saturated at about 105,000 to 107,000 per year, despite the large increase in the numbers qualifying. Whatever the reasons for this, on any reasonable hypothesis, an increasing number of qualified leavers can no longer be assumed to imply an increasing number entering higher education.

The evidence from the reports of the Universities Central Council on Admissions show that nearly all those qualified leavers who have applied to UCCA for entry to universities do obtain a place, either directly, or through clearing, or in the following year. These reports also show that there are substantial numbers of vacant places in universities, particularly in science and engineering departments. Vacant places are also known to exist in some degree courses in polytechnics.

So the saturation in numbers entering higher education is not due to the institutions being full. Indeed, during the period 1970-76 the rises in mature entrants from 27,300 to 33,000 and in overseas entrants from 6,100 to 17,100 might not have taken place if more of the young qualified leavers had chosen to go into higher education. Chart II shows clearly that in 1976 as many as 15,000 chose not to.

When we remember that in the 1960s there was nearly always a shortage of manpower, and unemployment was below 500,000, it is perhaps surprising that empty places did not appear more quickly in higher education institutions. The curves of qualified leavers and higher education entrants are clearly diverging (charts I and II) by 1972-73 and have increasingly diverged up to the latest, provisional figures for 1976-77. And this has been a period of rising unemployment and rapid inflation.

One is led to conclude that an increasing proportion of those who achieve the necessary qualifications at school believe they will be better off in a difficult employment situation if they do not go into higher education.

Of course, there are still 107,000 entering higher education from British schools and colleges each year, compared with only 87,600 10 years ago. So one must not exaggerate the disincentives to entering higher education. But, at the margin, as the number of qualified leavers continues to rise (chart II), the numbers entering higher education will probably not rise, unless the financial incentives for graduates and postgraduates are improved.

This is not something that higher educational institutions, or even the DES can change. It is a matter of national policy on highly skilled manpower, both as regards salaries and as regards the higher rates of income tax. Until present policies on incomes do change, it would be unwise to plan for many more entering higher education in the 1980s.

To be more specific, chart I shows that the DES central projection for the APR rising throughout the 1980s and 1990s from 13.5 per cent in 1976-77 to 18.3 per cent in 1995-96 is highly questionable. It is based on the rise in qualified leavers from 15 per cent in 1976 to 17.5 per cent in 1985 (chart I), but as I have shown, even if the schools achieve this remarkable rise in the next decade, it does not follow that the APR will rise with it.

Looking at absolute numbers in chart II, we see that the DES is setting the schools a formidable task in increasing the numbers of qualified leavers from 120,000 now to 156,000 in the 1980s. As Gareth Williams argued recently, this central projection is not likely and the low variant is more probable. So the "hump" shown clearly in its central projection in chart II for home entrants is not likely to materialize.

In fact the present plans of the DES to increase capacity in the higher education sector up to 560,000 students by 1981 is probably a more rapid expansion than can be justified on present projections. It is unlikely that this capacity will be needed before about 1985. If it is assumed (chart I) that the APR will rise above 14 per cent before 1981, so the number of home entrants will rise much above 120,000 per year in the 1980s (chart II). The "hump" is at best, just a gradual rise from 1988 and the current DES planning figure of 560,000 for 1981 is more appropriate to 1985 and may well be adequate for 1988.

After 1990 each of the DES projections show a fall, even the low variant projecting a fall in total numbers from 553,000 in 1984 to 453,000 in 1995. For comparison the present total numbers are 516,000; they were 446,000 in 1970. Is this projected fall of about 100,000 in total student numbers between 1984 and 1995 justifiable? The intentions of those who are currently aged between 12 and 17, with regard to higher education can only be guessed at, but two important factors must be allowed for in any projection of the charts.

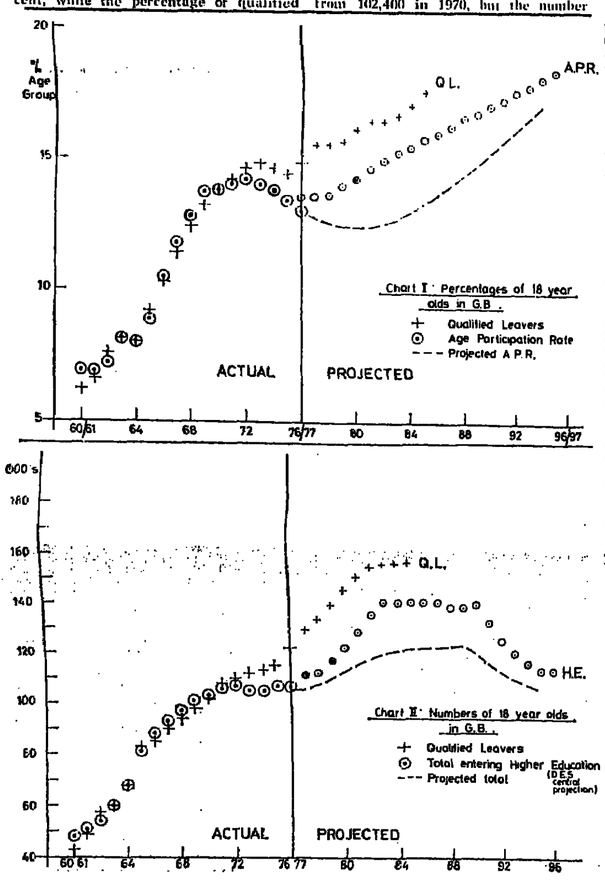
First, the DES paper points out in Appendix 2 that the average annual rate of decrease of the birth rate was only 1 per cent for social classes I and 2 between 1970 and 1975, but 6.6 per cent for social classes 3, 4 and 5. Since more than 80 per cent of home entrants to higher education at present come from social classes 3, 4 and 5, the DES estimates that after 1981 the APR will probably rise by 3 per cent to 1995, or about 1 per cent per year. With this correction, the projected increase becomes almost equal to the central projection (broken line curve, chart I).

Secondly, we may reasonably assume that the large increase in numbers entering higher education in the period 1965-80 will be reflected, about 25 years later, in an increase in the numbers entering higher education, when the children of these graduates reach 18-20 years of age. The projected total (broken line chart II) does not allow for this possibility, but if it has any validity it would tend to cancel the fall in numbers in the period 1985-95. So by 1995 the central projection should prove to be quite accurate, although it greatly overestimates the likely numbers in the 1980s. If this is true, then the total number in higher education in 1995 would be about 530,000.

This total assumes, with the DES, that mature student entrants will fall from the present 33,000 to about 30,000 per year and that overseas student entrants will fall from the present 17,100 to about 10,800 per year. If these falls, planned over the next three years, were reversed in the 1990s, then the total student numbers in higher education in 1995 would be about 528,000. plus 28,000, or 556,000 the planning figure of 560,000 for 1981 looks appropriate for 1995, as well as for 1985. One is forced to the conclusion that, to a good approximation, the only reasonable prediction for the next few years is a steady-state higher education system of almost constant size from 1981 to 1995, after a slow expansion in the early 1980s.

This prediction should be welcome to the DES, the higher educational institutions and the taxpayer. For the DES it implies that most of the funds now available for buildings should be devoted to school education and that higher education building grants should be concentrated on the refurbishing and replacement of existing older buildings rather than on a programme of expansion.

For the higher educational institutions it implies, after the upheavals and rapid expansion of the past 15 years, a period of stability and consolidation that should provide some of the improvements in the quality of service in higher education that have been bought for so long: better support of fundamental research and scholarship, guaranteed subbatical leave, better accommodation for students and residential staff, better maintenance of premises.



The author is Hildred Carlile professor of physics in the University of London.

BOOKS

The long association of Sidney and Beatrice Webb

The Letters of Sidney and Beatrice Webb
Volume I: Apprenticeships 1873-1892
Volume II: Partnership 1892-1912
Volume III: Pilgrimage 1912-1947
edited by Norman MacKenzie
Cambridge University Press in co-operation with the London School of Economics, £60.00 (the set)
ISBN 0 521 22015 7



As prophets, permeateurs and planners, Sidney and Beatrice Webb are foremost among the creators of modern Britain. Through the Fabian Society and the Labour Party, through the London School of Economics and the *New Statesman*, through an immense flow of articles, pamphlets and bulky historical monographs, from the mid-eighties down to the Second World War, the Webbs maintained a consensus, unpitying gospel of evolutionary and didactic improvement.

Yet until now, the Webbs have seldom spoken directly to us. Their monuments lie about us but they themselves have remained decently veiled. The published diaries of Beatrice Webb provided some of the public face. Otherwise, they have remained *eminence rouges* of the Fabian Society, less accessible to later generations than, say, Shaw, Wallas or Wells, and certainly much less obviously human. Sidney Webb, in particular, rose without trace; he has left surprisingly little intimate record. Norman MacKenzie's new enterprise in editing the Webb correspondence is therefore a most valuable aid to understanding. It illuminates not only the history of British socialist ideas and activity, but the wider British social and political experience since the *fin de siècle*. It provides an unusual commentary on a hundred years of national transformation and decline.

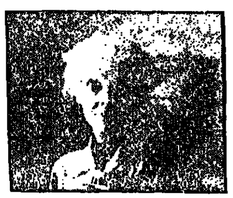
This is necessarily a small selection from the huge archive of the Passfield papers housed at the London School of Economics. Almost all the letters appear in print for the first time. Naturally, letters from the Webbs to one another, particularly full and frequent at the time of the courtship in 1889-92 and after Sidney entered Parliament in 1922, form the core of these volumes, but there are also hundreds of other communications from the Webbs to and from relatives and friends. Those to and from Asquith, Wallas, Haldane, Beveridge, J. A. Simon, Thomas Jones and Keynes are among the more revealing. Professor MacKenzie has deservedly pursued a policy of compromise in making his selection. He has chosen letters for their illumination of the characters or ideas of Sidney and Beatrice, or for their information on particular topics, or their high on certain themes that persist throughout the Webbs' careers. Incoming letters have been included only if they relate to a specific correspondence. On the whole, the selection is a notable success, as is MacKenzie's clear, helpful and economical discussion as editor. The editorial comment is not wholly removed from error nor from dubious dogmatism ("a typical Lloyd George deceit", for example). But the general reaction from historians and from the general reader must be one of deep gratitude for the labours of the editor in quarrying at this archive and in making available crucial first-hand material on the creators of a part of our world.

The impression of the Webbs left by these volumes is at once exhilarating and depressing. One is struck with equal force by their selflessness and their soullessness, by their dedication and their lack of humanity. The Webbs were a kind of machine. They had scant interest in religion, music or the arts. They did not particularly like the working-class they were so anxious to educate, organize and improve. "They must learn the absolute necessity of *strictness* of dealing, of self-control and of patient temper—all qualities they are deficient in", Beatrice wrote firmly in 1885. In October 1890, just before their engagement, Beatrice wrote to the hapless Sidney: "You I believe in but do not love". The same could apply to the Webb view of humanity in general, especially in the case of Beatrice. The three volumes here cover naturally the three main periods of their long careers and association. The first, up to 1892, which includes the extraordinary sexless courtship of Beatrice by Sidney, necessarily contains the most revealing letters. Sidney, slaving away at his desk in the Colonial Office, emerges as a more passionate, romantic figure than later impressions suggest, with a zeal for amateur self-analysis. "For a miserable man, I am still capable of much enjoyment", he wrote bleakly to Graham Wallas in 1885.

Beatrice, by contrast, was a product of social guilt as much as of social conscience, with the intensity compounded by her relationship with Joseph Chamberlain in the mid-eighties which disturbed even her iron self-control. During the courtship by Sidney, it was Beatrice who dictated matters throughout. Her letters to Sidney link discussions of the complexities of their personal relationship with analyses of Spencerian sociology of working-class housing and of Marshall's theory of rent. Beatrice repeatedly nagged the miserable man for his lack of "self-control": "Let us not be sentimental", she scolds, and packs him off to study the wages policy pursued by the Co-operative Society. On the other hand, she would not let Sidney go in peace. "Let us have a more detailed concordat", she demanded. When they got married in July, 1892, she asked Sidney for a photograph of his head as this was the only part of his anatomy in which she took any interest. After all this, it is with relief that one turns to Sidney's expositions of Fabian views on municipal socialism or Beatrice's interview with a factory inspector at Oldham. Even then, Beatrice as "investigator" was driving Sidney on as "executor" remorselessly, and nagging him for his slow progress on their joint book on British trade unionism. It is remarkable that the wretched man survived it all.

The second volume of letters covers the partnership from 1892 to 1912. Here, the letters are more scattered and, frankly, less interesting. At times, they are singularly wrong-headed as in their accounts of United States society and politics during an American tour in 1898. There is a wide range of scathing comment on contemporaries, notably by the chilling Beatrice, on Lloyd George, Churchill and the philosopher, G. E. Moore, whose ideas merely "disintegrated the intellects and characters of young men". Much of this was the product of frustration as the Webbs had no clear-cut role during these 20 years. They were isolated by the formation of the LRC, later named the Labour Party, in 1900. This was the creation of the cruelly unlettered Keir Hardie and the TUC, and of the stolid trade unionists whom the Webbs mostly despised. The Webbs themselves pinned their hopes of social advance on a series of unlikely champions—on Lord Rosebery and the Liberal Imperialists in 1901, on a non-party movement such as the "Co-efficients" in 1903. Meanwhile, the Fabian Society was having momentum, racked by new controversies provoked by H. G. Wells. In 1912, the Webbs had to swallow their pride and to join the ILP. They made their peace once again with the Labour Party.

Their main achievement in these years (though one exaggerated by some historians) was in exercising some influence on Arthur Balfour in the remodelling of public education in 1902. Their main disappointment concerned the Poor Law Commission of 1905-09 when Beatrice's ambitious scheme for a centrally administered scheme of public welfare got nowhere, and when she effectively isolated herself from the creative social programmes of Lloyd George and Winston Churchill. Many of the Webbs' activities in this period were rather pedestrian, such as the money-raising ventures to support their new project, the London School of Economics. On the eve of 1914, the Webbs were still frustrated improvers, evangelists in search of a crusade. On the personal side, things read as bleakly as ever. On their tenth wedding anniversary in 1902, Beatrice urges Sidney that "we must try to keep our health by temperance and guard our minds against any vulgar striving for personal prominence. . . It will be delightful to be back at our own little home and get to work again on the Poor Law Chapters".



The final phase, the "pilgrimage" of 1912-47, covered in volume three, was a time of much more impressive achievement. The Webbs were enthusiastic about the First World War and, at first, about Lloyd George: "so extraordinarily alert in intelligence and cheery and calm", Beatrice wrote in 1914. Sidney welcomed the war as an opportunity for "*Universal submission to the National Need*". Both Webbs were used by Lloyd George in devising new policies for post-war reconstruction. They also became central, in alliance with Arthur Henderson, in restructuring the Labour Party in 1918. Sidney in effect drafted the party's new constitution, Clause Four and all.

After 1918, the Webbs were reconciled to a more active association with the Labour Party. Sidney served on the Sankey commission on the coal mines in 1919, and finally entered Parliament (which Beatrice had long forbidden) in 1922 as member for Seaham Harbour, in Durham. He served in the first two Labour Cabinets in 1924 and 1929 and entered the House of Lords as Baron Passfield in 1929. Now the intellectual limitations of the Webbs came out most clearly. The Webbs, were no economists, and as adrift in the economic depression of the Twenties and thirties as was anyone else. Sidney voted with MacDonald in cutting unemployment benefit in August, 1931; the trade union Cabinet ministers wisely took the opposite view. Nor were the Webbs any more attuned to close collaboration with the TUC: Sidney's disenchantment with and disdain for the general strike is revealing here. His period as Colonial Secretary in 1929-31 was notable for his failures in handling the problems of India, Kenya and most of all of Palestine, where Beatrice's hostility towards Zionism was a major factor.

After 1931, the Webbs had no clear role in British life. Not surprisingly, they looked for their Zion overseas and produced their absurdly uncritical book on Soviet Communism which perturbed many friends in the Labour Party. Sidney wrote enthusiastically on the collective farms, Beatrice on the Russians' success in handling unemployment. She warmly defended the Moscow trials in 1936: "I think on the whole the Soviet Government has acted in wise restraint." It was a rather pathetic last phase. They pottered about in Passfield Corner, their days enlivened by visits from Maisky and Lloyd George. Beatrice died in 1943, Sidney in 1947, a socialist government in the helm but their planned antiseptic Utopia still far away.

On the whole, it is hard to love the Webbs after these massive volumes of revelation. Their religion of humanity seldom led to human sympathy for men in particular. Their creed of efficiency and discipline was alien to the warm, populistic radicalism from which the ILP and the Labour Party derived most of their moral strength. Their work added greatly to an understanding of welfare policy, of higher education, of industrial relations and of colonial development. But it was accompanied by a relative ignorance of economics and of history which makes their legacy one of limited value for later socialists. They wished to uplift the toiling working man, but never understood him. Knew him or even liked him. Reading grates more in these volumes than the patronizing letters written by Beatrice to the miners' wives in the Seaham constituency, trying to introduce their plain minds to political ideas. With their puritanism, austerity and zeal for bureaucratic control the Webbs were all too typical of some strains in the making of British democratic socialism. In their authoritarianism, elitism, and lack of humanity they were quite alien to it. They ignored the basic truth that socialism is about people even more than it is about power. They misunderstood the quality of the society they were anxious to transform.

Kenneth O. Morgan

Academic radicals in Victorian politics

ies and Numbers: elitism, Com- and democracy in mid- rian England
Christopher Kent
ersity of Toronto Press, £12.25
0 8020 5360 2

In 1867 John Morley prophesied ...e consequence of the second ...m Act would be as follows: ...extreme advanced party is ...ely for the future to have on ...side a great portion of the ...highly cultivated intellect in ...nation, and the contest will be ...tween brains and numbers on ...one side, and wealth, rank, ...trained interest, possession in ...shes, on the other.

...his book examines the reason why ...ley and the generation of men ...e Morley within the category of ...academic radicals" moving to the ...re in the 1850s and 1860s, came ...o have this delusory notion about ...e future order of battle between ...e forces of light and darkness.

...The central concept here is that ...a middle-class mission to the ...ocessing people by an educated ...olitical elite, whose disinterested intelligence would guide popular aspirations towards wholesome ends. They feared that without this guidance the old bad politics of selfish upper-class interests would merely be supplanted by a new bad politics of selfish lower-class interests. They postulated a public good which they alone had the means and the will to divine. They expected to be accorded a due deference by the grateful masses under their leadership.

But as early as the 1868 general election it was apparent that events were falsifying Morley's formulation. True, the Liberals led by Gladstone, a politician whom many of the academic radicals admired, had won a resounding victory. Yet J. S. Mill's loss of his Westminster seat, and the failure of most of the academic radical candidates, left them with a painful sense of deflation. "Brains", as the smarting Morley complained, "have been steadily ostracized". The Commons would continue to be dominated by the old-style politicians: "a chamber of mediocrity". And they suffered the indignity of mockery at the hands of a "smart satirical weekly", the *Tomahawk*:

> But answered them the victors—
> "You have yourselves to blame;
> Do what you will by Act or Bill,
> England remains the same.
> And men of sense, and gentlemen,
> Instinctively will choose
> O'er uninstructed demagogues
> Our academic views."

Mr Kent explores his sad theme with a dispassionate absence of irony. It is an area of nineteenth-century intellectual and political history with which only recently has academe learned itself to come to terms. Dr Christopher Harvie's *The Lights of Liberalism. University Liberals and the Challenge of Democracy, 1860-1886* (1976) deals with very much the same general problem. The differences of approach between these two books are instructive. Harvie stresses the unifying role of J. S. Mill's leadership together with the inheritance of a secularized evangelical tradition. Kent emphasizes the contribution of the Coleridge-Arnold school and gives much more attention to the Comtists, especially Frederic Harrison. Harvie is generally rather fuller of matter, Kent gives more attention to selected individuals, especially Morley and Harrison, whom he offers as examples of response to the implications of 1868: Morley represents a "retreat into politics"; Harrison a "retreat from politics". Probably the spectacle of Morley's elaborate disguise from the 1870s as a tough-minded, practical no-nonsense politician carries with it more pathos than Harrison's conservation of integrity and genially accepted political impotence.

Dr Kent is surely correct to insist that the Coleridgeans played a more crucial role in the formative period of this intellectual bid for political credentials. They were much more at ease, after all, than Mill in celebrating the prerogatives of enlightened authority. The case for them would have been strengthened here by some attention to J. R. Seeley, who moreover had characteristic links with the Positivists. And surely Matthew Arnold's rather equivocal relationship with the movement demands more consideration than it gets here. If only because *Culture and Anarchy* (like Seeley's *Expansion of England*) was a classic text in guiding the liberal intellectual class in their abandonment of Gladstonian Liberalism in the 1870s and 1880s. One has doubts, however, as to whether the Positivists merit equal billing. Still, they are so often passed over by historians as a mere eccentric sect that a slight inflation is more to be welcomed than censured.

Richard Shannon

The second volume of *Obituaries from The Times* has just been published by Newspaper Archive Developments at £17.50. It covers over a thousand obituaries for the period 1971-1975—approximately four for every week of publication. There is a contents guide to the names chosen by reference to their fields of activity. The second part contains an index of all entries appearing in the obituary columns in 1971-75.

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BOOKS

The mind's eye

The Sovereign Ghost: studies in imagination
by Denis Donoghue
Faber, £6.75
ISBN 0 571 10563 7

In a fine study of *The Waste Land* in this book Professor Donoghue suggests that Eliot's way in that poem of escaping from an emotional feeling of guilt, anguish, and self-disgust is not by bringing into being by a false effort of will an opposite emotional feeling, but, as in many of his early poems, by "working through a wide range of alternative conditions. The poems find safety and relief in numbers".

It could be rather similarly said that Donoghue finds safety and relief from the clash between the Coleridgean theory of the imagination, including its modern modification by Professor I. A. Richards, and what he calls in a broad sense a structuralist theory of the imagination, not by a head-on clash, but by considering multiple and variant theories of the imagination.

He is particularly interesting on Allen Tate's theory of the appropriateness of literal symbolism and the exorbitance of the angelic imagination; Wallace Stevens's theory of the tie between imagination and reality—the imagination, says Stevens somewhere in *Adagia*, cannot breed from the imaginary; the enrichment of the American imagination through a sense of failure, and Eliot's later sense that the imagination can make gestures towards Word ("the word within the Word unable to speak a word") but cannot (it is a central theme of *Four Quartets*) find words adequate to an intersection of time with the timeless especially since poetic structures of words are always being eroded.

That permanence at which the words of the poet aim (as Donoghue makes clear in a close look at a late play of Shakespeare's generally considered a failure, *Henry VIII*) will be at best a historically relative permanence. Cranmer's prophecy of the consequences of the Lady Elizabeth's birth is a drastically truncated history of the later sixteenth-century which is made less convincing by our knowledge of all that has happened to England and her Church since Shakespeare's death. Yet the image of Elizabeth as a phoenix (though it is hard to see her successor, James, as the next phoenix) is true to the myth of immortal youth and virginity, "royal sempiternity", that gathered round Elizabeth in her own reign.

It can very roughly be said that Coleridge's theory of the imagination implied the subjectivity of the poet who, by a special privilege, was able to melt as in a crucible, reshape and give a new freshness to the familiar objective world. Structuralism considers not poet and outer world but text and interpreter and unites subject and object in the reading of the text. One's sense of subjectivity is something left in the wake of the text as one interprets, the object is the text itself. Donoghue shows the usefulness of a structuralist approach to that famous passage in *The Waste Land* which begins:

> But at my back in a cold blast I hear
> The rattle of the bones, and the chuckle spread from ear to ear . . .

It is silly to ask "Who is speaking? What is the point of his narrative? Whose white bodies lay upon the ground?" The whole function of the passage is not to be compared with a world outside but to create a special atmosphere by a set of little verbal shocks, changes, surprises, shifts of gear. As Donoghue says: "Questions more in accord with the nature of the passage would include the following: what is going on when 'rat's foot' is preceded by the punning rhyme 'rattled'? . . . These questions are not likely to set anyone's heart astir, but they are more in accord with Eliot's poem because they do not call another world in judgment on the words."

Donoghue is excellent on the exposition of critical theory but so many theories of the imagination are outlined here that the "sovereign ghost" is more, in the end, like the "familiar compound ghost" in Eliot than like "affable familiar ghost" in Shakespeare. It is very much of a shape-shifter—seeming to alter its look and expression according to the particular writers or passages Donoghue is dealing with.

For good as he is at the exposition of grand theory, Donoghue is even better at close criticism, in which he is wise enough never to let the range of theories he is expounding interfere with his flashes of deep and quiet critical insight. Long after one has forgotten just which theory of the imagination was whose, and what its particular contention was, one will remember his very beautiful treatment of a familiar enough passage the recognition scene between Cordelia and the King in *King Lear*; his comparison also between the Henry James of *Notes of a Son and a Brother* and Henry Adams's *The Education of Henry Adams*, in which his obvious love for the receptive openheartedness of James does not make him unfair to the bleak defeated irony of the singularly unlikeable Adams. His account of Allen Tate's *The Fathers*, and his extraordinarily telling quotations from that neglected masterpiece, are an act of deserved piety.

Donoghue is remarkably, as the young say, "into" every intellectual fashion of the day, including not only the structuralists but Benjamin and Adorno of the Frankfurt school. Yet he leaves one with an impression not of an ideologue but of a free, rich, and penetrating critical intelligence, strong in unstated loyalties, and never shackled by dogma.

G. S. Fraser

The innocent abroad

Mark Twain in England
by Dennis Welland
Chatto & Windus, £8.00
ISBN 0 7011 2233 1

Few American writers of the nineteenth century were more concerned about their English reputation than Mark Twain. Indeed, it seems at times as if the "matter of England" (as it might be termed) came second only in importance for him to the matter of Hannibal. Despite this importance, however, the publishing and reception of Twain's writing in England has never been the subject of a full-length study—although there has been some investigation of his changing attitude towards the English (most notably in Howard Baetzhold's *Mark Twain and John Bull*) and many of the contemporary English reviews of his work are available in Frederick Anderson's *Mark Twain: The Critical Heritage*. Dennis Welland's *Mark Twain in England* now more than amply fills that gap.

Drawing on a good deal of unpublished material, and in particular on correspondence between the author, his English publisher and his English friends, Professor Welland offers at once a fascinating insight into the day-to-day activities of a Victorian publishing house and a valuable contribution to our understanding of Twain's work, his general methods of composition and his special interest in his English audience.

As far as the author's involvement with his publishers is concerned, one of the chief attractions of Welland's book is its moving portrait of a friendship. From fairly early on in Twain's career, his popular publishers were Chatto & Windus, and between Twain himself and Andrew Chatto there gradually developed an affection that was formal on the surface, perhaps, and yet obviously profound. Chatto emerges from this account as a particularly sympathetic figure. He was, it is clear, quite generous in all of his financial arrangements, delightfully tactful when it came to discouraging some of Twain's more dubious enterprises (including a "limited edition" of a mildly indecent poem) and genuinely helpful whenever the Clemens family stayed in London. The whole relationship is epitomized by the letter of condolence that Chatto sent to the author on hearing of the death of Olivia Clemens: at once restrained and emotional, it shows a delicacy of expression and a sensitivity of feeling which the creator of Huckleberry Finn would undoubtedly have appreciated.

The other relationships examined by Welland, involving Twain, his English acquaintances and the English public, offer, by contrast, a familiar and yet intriguing variation on the international theme. On the one side, English readers and reviewers alike seem to have felt an initial reluctance to look beyond the author's various comic personae, tending to regard him as (to use the words of one Victorian critic) "a flower of the wilderness . . . whose residence upon the fringes of civilization lent additional charm to his humour to develop such restraint".

On the other side, Twain, apparently both awed and annoyed by what he called "so respectful and dignified a people as the English", assuming almost without question that they could lay claim to the possession of a greater seriousness than himself. The subject was all theirs, the crudeness all his: according to this opening scenario, if anything, the reality was rather closer to the truth. At any rate, this led to any number of difficulties, with Twain in particular often miscalculating the English response to his work.

Eventually, an understanding was reached. Always eager to cultivate his English readers, Twain nonetheless came to feel less inclined to be bullied by them; while for their part the readers, drawn from all levels of society, accepted him as less a comic and serious and important writer. The amusement remained, but it was tempered now with affection and even respect; and it is perhaps not the least of Dennis Welland's achievements that he shows us with the same range of feelings and approach to the man and his books. As a work of considerable scholarship, in other words, and of consistently rigorous and sympathetic criticism, *Mark Twain in England* manages to illustrate, deepen and enhance the special relationship it sets out to explore.

Richard [illegible]





Edgar Allen Poe's work has inspired many writers, artists and film-makers. These illustrations for The Raven, by Manet and Doré, are to be found in a new biography, The Extraordinary Mr Poe by Wolf Mankowitz (Weidenfeld & Nicolson, £6.50).

Unleashing the doggerels of war

Drummer Hodge: the poetry of the Anglo-Boer war (1899-1902)
by H. van Wyk Smith
Clarendon Press: Oxford University Press, £9.50
ISBN 0 19 812082 6

Surely a most unpromising topic for study: this outmoded poetry of a minor war, now dwarfed by later and greater conflicts anyway? In fact Professor van Wyk Smith's thoroughly researched volume proves to be fascinating and salutary, bringing to the forefront a good deal that has been ignored, or falsified by simplification. Wisely, he has not confined himself to poems of literary merit, or to those by servicemen, or even to those written in English. This study therefore is a form of general cultural history rather than literary criticism.

That far-away war had certain affinities with the Spanish Civil War (as a rehearsal for bigger things) and with the Vietnam War (in so far as a small wily foe, supposedly pure and pastoral, took on and outmatched an industrial giant). Not surprisingly then the world at large, with the exception of America, was anti-English and produced a great deal of poetry on the subject, especially from nations also involved in the scramble for Africa—the Germans being particularly libellous and calumniating, the French particularly grandiose, and the Dutch, as far as one can tell from translations, just excruciatingly bad.

What is perhaps surprising is the amount of anti-war, anti-English, or pro-Boer poetry produced in England, or even by Englishmen in South Africa—most of it of higher quality than the much better-known patriotic bombast by Henley, Newbolt *et al.* Nietzsche, Darwin and (by sheer irritatingness) the decadents fuelled the familiar but still incredible war fever of the 1890s. On the other hand evangelicalism, feminism and socialism prompted a pacific and non-patriotic body of verse equal in volume and far less liable to collapse into the unintentional farce of many of "the illustrious obscure" freely quoted here. Witness Sydney E. Auchinleck's *For the Honour of the Queen* (1900):

> The battle had been fierce and long, and fearful was the slaughter,
> Our hands were still all stained with gore, for there was lack of water.

Not that the anti-war people had all the right on their side. Some idealized the Boers out of recognition, others were caught in the trap of their own idealistic imperialism. They shared the widely held idea of Empire—at any rate *British* Empire—as a means of worldwide peace, impartial justice, universal civilization, and freedom (not subjection) for all the peoples within its bounds. Since the Boer War was blatantly in the cause of commercial, not moral Empire-building, it compromised that noble ideal and had to be opposed. Too often, alas, anti-semitism provided the escape route: evil Jewish capitalists rather than good English imperialists were to blame.

Straightforward humanitarianism, however, played a large part too. For the first time in history a considerable number of literate people conceded the enemy's case and deplored so much slaughter in so deplorable a cause. For the literary historian it is particularly interesting to find so many anticipations of Wilfred Owen's grisly realism and transcendent pity—not all of it from the troops. Indeed it is hardly possible to distinguish services writing from civilian writing. Neither the division between the "bloody" attitudes of World War I existed, nor that of today between the popular poetry and song produced by the people and that *for* them. Kipling, the music-hall, and the street ballad provided models for all, and service-men and civilians alike, in the great debate of the time, covered almost the whole spectrum of opinion. Professor van Wyk Smith notes one significant exception:

> On the other hand, I have not come across any campaign verse that reproduces the strident patriotism of the more clamorous doggerel written at home. The soldier simply did not look at himself from a perspective so untouched by irony or hardship (page 184).

Some poetry *apparently* of this kind turns out to have been [illegible] formed by newspaper editors before publication. Perhaps it is fortunate with this fact that Bridges and Hardy hymned by the Germans are not mentioned by Boer poets—who indeed seem to have been provided with better poetic propaganda by England than they provided for themselves. A remarkable tribute to nineteenth-century liberalism and Boer honesty.

Such are the main points of general interest. The range of the book, though, and its wealth of information from largely unexplored sources, give serendipity its chance too, and make of a seemingly unpromising topic not only profitable but often also unexpectedly pleasurable reading. To conclude with just one happy find: "the Kipling of Cape Town" turns out to be none other than the young Edgar Wallace—who also wrote poetry under several other names, making of himself a sort of one-man Cape Town school!

Allan Rodway

BOOKS

Multiple integrations

Immigrants and Minorities in British Society
edited by C. Holmes
Allen & Unwin, £10.00
ISBN 0 05 942160 3

Contemporary preoccupation with recent coloured immigration has tended to divert attention from serious analysis of the experiences of earlier immigrants to Britain. This volume is intended to redress the balance.

In tracing the historical aspects of immigration its contributors demonstrate the complexity of the dynamics of migration to Britain, the fortunes and misfortunes of the migrants and the behaviour of the receiving society, constantly divided as it has been between self interest, hostility towards aliens and recurrent fear, if not overwhelming, notions of fair play and altruism. A principal theme is the need to understand all this in the social, economic, political and international context of the time. This sober discipline entails challenging some pseudo-historical judgments of the racialism or tolerance of British traditions as crude and simplistic.

Kiernan's chapter, which surveys migration to Britain from the Roman invasion to the present day, should put an end to the wearisome and apparently almost mandatory reference to the Huguenots as the beginning of the British experience of immigration. The extraordinary amount of information compressed into 40 pages is slightly indigestible but the chapter together with Kellenbenz's contribution on German immigrants, should be an indispensable quarry for those embarking on historical investigation of migration. Amid the mosaic of persecution and protection, ethnicity, adaptation and assimilation which Kiernan has assembled can be glimpsed the more familiar themes of the association of migrant labour with industrial expansion, with protectionism, with the control, dispersal and registration of aliens and, last but not least, with disputes about the definition of foreigners and citizens.

Gilley's chapter on English attitudes to the Irish in England is a refreshing account of the evolution of a national stereotype which included good points and bad, variously invoked according to temperament and circumstance. Victorian obsession with Anglo-Saxon and Celtic characteristics entailed both condemnation of supposedly Irish failings as well as optimism about the advantages to be accrued from the combination of the qualities of the two cultures. Gilley also questions the currently fashionable tendency to draw easy equations between nineteenth-century English attitudes towards the Irish and English and American racialist perceptions of Negroes, a far more visible group. Hostility, he concludes, was directed mainly at the political and religious loyalties of the Irish and at the crudities of the life of a largely poverty stricken group. Is it fair, he asks, to describe as racialist the attitudes of all those who misinterpret the origins of a behaviour which is the almost inevitable concomitant of life in the most ghastly slums and the translation of a rural peasantry to the metropolis? The answer to this question cannot be simple and has relevance for contemporary British race relations.

Perhaps the least satisfactory chapter is Holmes's examination of the social and economic historian J. A. Hobson's attitudes towards the Jews. In spite of Hobson's at times lurid accounts of Jewish life and economic influence, Holmes argues, reasonably convincingly, that it would be inaccurate to describe this as classical anti-semitic prejudice. Hobson's views were neither sufficiently fixed nor conclusive to justify such a description. It is difficult to know what to make of this searching but slightly tedious analysis but two lessons can be drawn. First, any evaluation of attitudes, if it is not to smack of a witch hunt to separate the pure from the tainted, must not be confined to single instances but trace their evolution and be related to their contemporary contexts. This salient point is often ignored in recent preoccupations with the detection of supposedly racialist bias. Second, those who write about groups likely to be subject to prejudice and discrimination must be obsessively careful, for the sake of their subjects, not simply their own reputation, to distinguish between wisdom or folklore and fact, and between a style of life thrust upon or evolved by a group and its innate characteristics.

If Jews in Britain have variously been violently persecuted, welcomed and halfheartedly tolerated; if the Chinese, as May's sensitive account explains, have settled largely harmoniously, against all the odds, can historical analysis help to answer these crucial questions? Under what conditions are racial differences perceived to be relevant and when does discrimination against minority groups become the norm to which the majority conforms? Most of the contributors content themselves, in my view tantalizingly, with historical accounts. Nor surprisingly, given his long and distinguished association with the study of race relations, it is Rex Dunkin who comes nearest to suggesting answers in a fascinating and subtle study of great contemporary importance, of fascism and anti-fascism in Stepney. The triumph of the latter, again against all the odds, seems associated with a complex mixture of circumstances. These included the long accepted presence of a large minority group and a sense of collective identity among East-Enders, together with political activity which accommodated rather than overlooked or suppressed tensions, and which successfully tackled local social problems oppressing Jew and gentile, black and white alike. This last chapter is a superb and, sadly, rare example of what can be achieved by a combination of accurate historical analysis and sociological insight.

This book will not be popular with those who like to think in simple terms about the relationship between migrants and the longer standing inhabitants of these islands. It may be ignored by many who are concerned with race relations because it includes uncomfortable facts, because in the most part the reader is left to do the hard work of drawing what inferences he can from historical data, and because it is expensive. Be not deterred.

Juliet Cheetham

Practical systems theory

Group Work: Learning and Practice
edited by Nonie McCaughan
Allen & Unwin, £7.95 and £3.95
ISBN 0 04 361029 3 and 361030 7

Given the limited development of social group work in Britain compared with the United States, it is perhaps not surprising that the National Institute for Social Work's first contribution in the subject should be number 33 in its Social Services Library, and should appear to be short of two decades since the Institute itself was established. The book under review is therefore likely to be welcomed by social work practitioners and academics alike even though, as will be seen, it contains a mixture of the good and the indifferent.

Fifteen authors have between them contributed 14 papers to the collection, which is divided into three sections, respectively "Frameworks for Practice", "Aspects of Learning" and "Aspects of Practice". It must be said at the outset that this division is arbitrary in the extreme, for some of the contributions could be located under more than one of these headings and a few seem quite misplaced, perhaps reflecting the editor's difficulty in holding her contributors to their task. Thus, an excellent practical account of group work with the elderly on a housing estate is not placed, where one might expect, in section three but is found in section one. The justification for this curious arrangement appears to be an attempt to locate the work described in a theoretical context, in this case systems theory, in order to provide a coherent framework for practice. Since the retrospective application is entirely and adds little to one's understanding of the group work concerned. For some readers it may even detract from it.

The institute's current dependence on, or perhaps even addiction to, systems theory is reflected elsewhere in this volume and lies behind the claim made on the cover that it is a "carefully integrated source book". This claim is not justified by the contents of the reader, though it is certainly a useful collection of papers covering a wide range of topics with varying degrees of quality and interest. Efforts to integrate such a mixture seem artificial and largely unsuccessful and it would perhaps have been preferable to seek less obviously for a unifying theory and also to omit the editorial pages between the sections, which, as in most readers, serve no useful purpose.

That said, there are some important and valuable articles within these covers. On the theoretical side, it is refreshing to turn to the contribution of a social psychologist (Smith) who deals lucidly with leadership and group development and offers much in the way of practical help both to social workers and to those who are concerned with their education and training. Douglas offers an interesting model for teaching group work, but his contribution is so concise that in places it becomes tantalizing and one longs to know more. The remaining theoretical articles are less satisfactory. These include one (by Thomas) that appears in the "practice" section purporting to discuss group work in the context of community work, but actually consisting of a collation of theories from other writers about what may happen in community groups, without providing any examples from the author's own experience. Similarly, the final chapter (by Briscoe) on programme activities is more theoretical than practical and reads like an academic shopping list.

The real strength of this book lies in those contributions that deal directly with practice. Davies offers a lucid and coherent account of supervising students in groups in a fieldwork agency and her practical and helpful comments are supported by examples from her own experience. Lanning and Sturrup (in one of only two papers in this collection that have appeared elsewhere) describe the growth of group work in a social services department and demonstrate that it is both feasible and worth while. They ought to succeed in their desire to stimulate developments in other departments. Whiffen contributes a wide-ranging and thoughtful account of group work in relation to family therapy, with excellent examples located in a theoretical structure that is firmly grounded in the realities of practice. She offers thereby many potentially fruitful leads to practitioners. There is also a clear and constructive paper by Payne on group work in the residential setting, though some aspects, such as staff groups, are far too scantily covered.

Finally, there are two outstanding case studies. Walker provides an illuminating and moving account of long-term group work with socially deprived parents, demonstrating that real achievements are possible even with those who are often written off as "inadequate". This is even more dramatically demonstrated in Breslin and Sturton's absorbing description of group work in a hostel for mentally handicapped women. After reading this, no one should doubt the feasibility of group work with the mentally handicapped, particularly as the writers provide much practical advice in the process of recording their experiences.

In sum, this collection contains a certain amount of relevant theory and a great deal of useful guidance derived from practical experience. The editor would do well to consider producing a further collection consisting entirely of case studies of the type which so richly adorn the present volume.

John Haines

Focusing an image

Images of the Urban Environment
by D. Pocock and R. Hudson
Macmillan, £5.95 and £2.50
ISBN 0 333 19198 6 and 19211 7

Almost without exception, geographers who offer courses in environmental perception will have found it hard to organize material to present a coherent discipline and a reasonably unified research focus. Problems of synthesis seem to persist regardless of what is included in the syllabus, what is glossed over, what is ignored. This book is taken from Pocock and Hudson's final-year course at Durham University and is written as an introductory text for undergraduates in geography and related disciplines. The authors have organized their overview of research around the idea of the image—a hypothetical construct that represents the psychological relationship between individual and environment.

Adopting a model used in person-perception research, the authors suggest that the image may consist of three kinds of components: the designative, the appraisive, and the predictive. Evidence to support the designative, or factual aspect of the image, is presented from research about urban mental maps and knowledge of the ways in which individuals use distance and direction in the city. Appraisive qualities include evaluations about places which, the authors suggest, are external and shared among social groups, and preferences for places which, they argue, are more subjective and idiosyncratic. Evidence for both is drawn from research projects. The predictive component of the image, that which relates image to actual behaviour, is not explored in any detail because they say the application of phenomenological approaches is strengthening the philosophical basis of the discipline. While the image has relevance in certain areas of analysis, such as the role of the media in the reinforcement of environmental stereotypes, this book could have been strengthened through the presentation of recent developments in the subject.

J. A. Burgess

Reviewers

J. A. Burgess is lecturer in environmental perception at University College London and author of Image and Identity;
Juliet Cheetham is lecturer in applied social studies at Oxford.
G. S. Fraser is reader in English at Leicester University;
Richard Gray is senior lecturer in literature at Essex University;
John Haines is senior lecturer in social work at Leicester University and author of Skills and Methods in Social Work;
Kenneth Morgan is fellow of Queen's College, Oxford and lectures in modern history and politics;
Allan Rodway is reader in English at Nottingham University;
Richard Shannon is reader in English and American studies at the University of East Anglia.

Biosocial Man, edited by Dan Bruthwell, is a collection of essays published for the Eugenics Society by the Institute of Biology at 14. All the essays have appeared in periodicals within the past 15 years. The collection, reflecting the heterogeneous nature of "biosocial science" covers a wide variety of topics, from hominid behavioural evolution to aspects of population. There are papers by eminent sociologists, psychologists, anthropologists and geneticists, and by specialists in population, bioethics and behavioural sciences. The papers are so arranged that each paper makes some useful extension on the one before, ending with Leon R. Kass's paper *The New Biology: what price relieving man's estate?* which poses questions regarding the future of the species.

J. ALEKSANDER
THE HUMAN MACHINE
A view of intelligent mechanisms
Topics include:
The Human-Mind Automaton
Do Automata have Dreams?
The Psychotic Automaton
The Genetic Automaton
Automata and Society
"A most interesting book. Professor Aleksander reviews the subjects of automata theory and intelligent mechanisms, and shows how they may be used to describe human behaviour — mental, genetic and social." — *Electronics & Power.*
George Publishing Co.
New Edition May 1978
100 pages, 21 illus.
0-2604-00023-7
Paper £3.90
UK distributors:
Global Book Resources Ltd.
109 Great Russell Street
LONDON WC1B 3NA

NOTICE BOARD

Noticeboard is compiled by Patricia Santos and Mila Gu...

Chairs

Mr Peter Lawrence Watson, lecturer in accounting at the London School of Economics, has been appointed to the Esmée Fairbairn chair of accounting and financial management at the University College at Buckingham, from July 1, 1978.

Professor H. A. Chadwick, professor of metallurgy and materials at the University of Queensland, Australia, has been appointed to the chair of engineering materials at the University of Southampton. He will take up his position on September 1, 1978.

John Creedy has been appointed to the chair of economics at the University of Durham. He has been working as a Research Officer at N.I.E.S.R.

Grants

Reading

Soil science—£21,489 from the ARC for work on the uptake of nitrogen and phytostats by plants from flowing nutrient solutions.

Geography—£17,743 from the NERC for research on the discrimination of terrain properties, particularly soil moisture, using ground and remotely sensed thermal data.

Chemistry—£38,950 from the SRC for fluorescence and two-photon excitation studies with a tunable dye laser.

Agricultural economics and management—£76,016 from Ministry of Overseas development for research on the process of mechanization in rural South Asia: policy analysis and planning methodology.

Recent publications

"What People Wore" a visual history of dress from ancient times to the twentieth century by Douglas Gardine traces the general changes in fashion trends and gives a general background history including American Costume. (Published by Orbis Publishing Ltd, available next week).

Appointments

Universities

Bristol

Pro-vice chancellor: Professor R. G. Chambers, Readers: Mr M. Lambert (history); J. C. Macqueen (classics); Dr Hilary Muirhead, Dr J. J. Holbrook and Dr R. M. Denton (biochemistry); Dr J. R. Maxwell (chemistry); Dr E. C. Barrett (geography); Dr D. A. Armstrong (physiology); Dr P. M. Dunn (child health).

Durham

Lecturers: Richard Arthur Abram (applied physics); Gerald Rex Smith (Arabic in the School of Oriental Studies); Richard Harry Scott and Alan Raymond Selby (mechanical science); John Wilks and Robert Calhoun Pro-Vine (music); Charles Kingsley Crook (psychology); Peter James Green (statistics in the department of mathematics); Richard Douglas Smith (education in the School of Education); Joseph Howard (chemistry). Bursar of Grey College and part-time lecturer: Gavan Muir Parton (engineering science). Vice-chairman of Council: Sir James Steel. Public orator: Professor W. R. Fisher, Chairmen of boards of studies: Professor G. B. Townend (classics and ancient history); Professor D. P. O'Brien (economics); Dr E. C. Salthouse (engineering science); Professor J. T. Clarke (geography); Professor M. P. H. Bott (geological sciences); Professor W. P. Bridgwater (German); Professor W. R. Ward (modern history); Professor A. J. M. Milne (politics); Professor P. Abrams (sociology and social administration).

Lancaster

Senior lecturer: Leonard C. L. Skerratt (accounting and finance). Lecturers: Dennis C. Hay (psychology); Nicholas J. Derricourt (social administration); Stuart J. McLeay (accounting and finance); Alyson J. McLintock (accounting and finance); Felicity M. Rossiyn (English literature); Carl C. Powers (law); Di Mahendra G. Naraine (politics); Luciano Cheles (Italian).

London, Institute of Education

Deputy director: Professor Denis Lawton.

Institute of Historical Research

Deputy director of the Victoria History of the Counties of England: Dr C. R. J. Currie.

Nottingham

Lecturer: Nigel Osborne (music).

Southampton

Deputy vice-chancellor: Professor J. H. Bird. Visiting professor: Dr R. R. A. Coles. Deans of faculties: Professor C. Morris (arts); Professor G. A. Kerkut (science); Professor M. A. Gale (social science); D. E. Fordham (educational studies); Professor D. C. Jackson (law); Professor S. A. Robertson (mathematical studies). Lecturers: Dr K. M. Sharpe (history); G. M. Blue (language centre); C. M. Mason (geography); C. K. Jolly (civil engineering); W. R. Jones (adult education); Dr C. Barbatis (pathology in the faculty of medicine); Dr C. M. Taylor (primary medical care in the faculty of medicine).

Surrey

Visiting professor: S. F. Wheatcroft (hotel, catering and tourism management). Consultant microbiologist in the Guildford Public Health Laboratory and senior lecturer in microbiology: Dr T. J. Colenaun.

UMIST

Lecturers: Dr J. V. Pickstone (history of science and technology); J. G. Proulx (structural engineering).

Polytechnics

Liverpool

Head of department: Dr A. C. O. Ellis (library and information studies).

Portsmouth

Head of the department/professor of biological science: Dr F. A. Hibbert.

General

Dr Anthony S. Laughton has been appointed director of the Institute of Oceanographic Sciences. He will succeed Professor Henry Charnock who has taken up the chair of physical oceanography at the University of Southampton.

Forthcoming events

"Approaches to Learning" a course for adult educators will be held from July 1 to 8 in the department of extramural and adult education of Glasgow University. It will deal with the humanities and social sciences. Fee: Residential: £58. non-residential: £25. Applications to the enrolment secretary, department of extra-mural and adult education, 57-61 Oakfield Avenue, Glasgow G12 8LW.

* * *

The Sixth International Graduate Summer School for Librarians will be held from July 4 to at the College of Librarianship, Wales, in Aberystwyth, which is sponsoring it jointly with the University of Pittsburgh Graduate School of Library and Information Sciences. For further details apply to Director IGSS, College of Librarianship, Wales, Llanbadarn Fawr, Aberystwyth, Dyfed SY23 1AS.

* * *

The summer conference of the Association of Colleges Implementing DipHE programmes (ACID) will be held from July 9 to 12 at Maristow House, Roborough, near Plymouth. Full details from Ray Bullock, Polytechnic, Ashley Down, B...

* * *

A one-day workshop on social sociology to social work students... held at the School of Social ... Leicester University on July 12. ... Application forms from Mrs ... Williams, Administrative ... CCS-STW, 4th Floor, Myson ... Railway Terrace, Rugby CV21 ...

* * *

The third Essex Conference on ... ture, Society and the Sociology ... erature will be held on July 13 ... and will focus on the year ... Further details and registration ... Conference Committee, department ... literature, Essex University Colch... CO4 3SQ.

* * *

The first international conference ... lernational Policy and ... linking ... of the Society of Indu... will be held from July 14 to ... Digby Stuart College, London to ... the society's 21st anniversary. ... £45 for members, and £60 ... members. Applications to the Sec... of Indexers, 28 Johns Avenue, ... NW4 4EN.

Honorary degrees

Bristol

Honorary degrees will shortly be conferred upon the following:

DSc: Dr Manfred Eigen, Max Planck Institute in Gottingen and foreign Member of the Royal Society.

LLM: Mr J. E. C. Clarke, Treasurer of the Society of Merchant Venturers.

DSc in social sciences: Professor Sir Richard Stone, F. D. Leake professor of finance and accounting at the University of Cambridge.

DLitt: A. J. P. Taylor, historian and journalist.

MLitt: Mr J. Lightbown, retiring deputy librarian of the university.

DMus: Mr Norman Del Mar, freelance conductor and professor of ... at the Royal College of Music.

DSc in engineering: The Lord ... fellow of Clare College, Cambridge.

MD: Dr D. P. Burkitt, medical ... Rst and at present an Honorary ... research fellow at St Thomas's ... tal.

MA: Mr T. B. Smith, finance ...

Hull

At the conferment ceremony to ... June 9 honorary degrees were ... ferred:

DLitt: Lord Boyle of Handa..., chairman, Committee of Vice-Chancellors and Principals.

LLD: Sir William Dale, ... legal consultant. Mr Patrick ... Warden of All Souls College, Ox... Professor Cecil Jay (Classics, ... president of Texaco Inc.

Tuesday June 27

BBC 1

6.40 The development of instruments and their uses: Sliding Quarters—Style and Texture. Video 4000 ... prog 29.

7.05 Social Psychology: Analysing Interaction (1) (2525) ... prog 34.

7.30 Solids, liquids and gases: The Structure of a Liquid (4125) ... prog 25.

BBC 2

6.40 Control of technology: Does Anybody Want to Know: The Story of the Windscale Advanced Gas-Cooled Reactor (4754) ... prog 10.

7.05 Biological bases of behaviour: Instinct, Environment and Animal (4812) ... prog 10.

7.30 Geomorphology: Glacial Cycles in the Peak District (4813) ... prog 10.

8.00 Language and Learning: Language Modelling and Language Use (4292) ... prog 10.

8.40 Social work and community work and society: Welfare Rights (4826) ...

9.05 Personality and individual differences: Psychological Practices (4827) ... prog 10.

9.30 Reading skills: Comprehension and Reading for Information (4828) ... prog 10.

10.00 Working and learning in Residential Communities (4829) ... prog 10.

10.30 Language foundation course: Human Communication (4830) ... prog 10.

11.00 Mathematics and its applications: Probability (4831) ... prog 10.

11.30 Mathematics and its applications: Statistics (4832) ... prog 10.

RADIO 3 (VHF)

6.00 Renaissance and reformation: The British Isles Song (A301) ... prog 10.

6.20 Broadcasters and broadcasting: Broadcasting and Politics from ... (A302) ... prog 10.

6.40 Biology: Control and public health: Radiological Protection (A303) ... prog 6.

7.00 Biology: Control and public health: Radiological Protection and Society (A304) ... prog 6.

7.20 Language foundation course: Human Communication (A305) ... prog 10.

7.45 Open forum—19.

RADIO 4 (VHF)

9.10 War and society: Industrial Unrest in 1917: A Report between Arthur Henderson and Sidney ... (A501) ... prog 10.

9.30 International politics and peace research: Violence, Terrorism and the State (A502) ... prog 10.

9.50 Problems of philosophy: Existentialism in Modern Thought: Sartre (A503) ... prog 10.

10.10 Problems of mathematics: Newton and the Calculus (A504) ... prog 10.

RADIO 3 (VHF)

24.00 History of architecture and design 1890-1939: Early Modern Buildings (A305) ... prog 12.

Fundamentals of human geography: Industrial Power in the North East (A306) ... prog 12.

Masters of prose 1648 to the present: Sermons and speeches (A307) ... prog 10.

Wednesday June 28

BBC 1

6.40 Control engineering: Heat Loss (4741) ... prog 10.

7.05 Linear mathematics: Approximation (4742) ... prog 10.

7.30 Technology for leisure: Electronic Drawings (4743) ... prog 7.

8.00 An introduction to metals: Sugar Coffee—The Process (4744) ... prog 10.

8.40 The nature of chemistry: Reactions in Context (4745) ... prog 10.

9.05 History of architecture and design 1890-1939: Houses of the 1920s (4746) ... prog 10.

9.30 Industrial buildings: Industrial Buildings (4747) ... prog 10.

10.00 Communication design and decision: Design and Decision (4748) ... prog 10.

10.30 Communication design and decision: Design and Decision (4749) ... prog 10.

RADIO 3 (VHF)

6.00 Renaissance and reformation: Poetry: Wyatt, Surrey (A308) ... prog 12.

6.20 Learning from television: The Mathematics of Motion (A309) ... prog 10.

6.40 Literature and society: Literature and Politics: Orwell (A310) ... prog 10.

7.00 Biology: Control and public health: Radiological Protection and Society (A311) ... prog 6.

7.20 Language foundation course: Human Communication (A312) ... prog 10.

7.45 Open forum—20.

RADIO 4 (VHF)

9.10 War and society: Industrial Unrest in 1917: A Report between Arthur Henderson and Sidney ... (A313) ... prog 10.

9.30 International politics and peace research: Violence, Terrorism and the State (A314) ... prog 10.

9.50 Problems of philosophy: Existentialism in Modern Thought: Sartre (A315) ... prog 10.

10.10 Problems of mathematics: Newton and the Calculus (A316) ... prog 10.

Thursday June 29

BBC 1

6.40 Principles of control and equilibrium (4751) ... prog 10.

7.05 An introduction to the use of ... which communicate ... (4752) ... prog 10.

7.30 Mechanics (4753) ... prog 10.

8.00 Mathematics and its applications: Mechanics (4754) ... prog 10.

BBC 2

6.40 Drama: "The Wild Duck" (4707) ... prog 10.

7.30 Play and Word Time (4708) ...

8.00 Chemistry of solids: Structure and Properties of Solids (4709) ... prog 10.

8.40 Biology: Control and public health: Radiological Protection and Society (4710) ... prog 6.

9.00 Personality and individual differences: Psychological Practices (4711) ... prog 10.

9.30 Programming and planning: To Be Announced (4712) ... prog 10.

Alternative broadcasts for North Scotland and Welsh transmitters

24.00 Beginning counting—6.

00.20 Social work: community work and society: Welfare Rights (4826) ...

00.40 High Tension—19.

Friday June 30

BBC 1

6.40 Biology: Control and Internal Environment: Temperature Regulation (4761) ... prog 10.

7.05 Comparative Government and Politics: The Executive (4762) ... prog 10.

7.30 Biochemistry and molecular biology: Enzymes (4763) ... prog 10.

BBC 2

6.40 Communication design and decision: Design and Decision (4764) ... prog 10.

7.05 The Comparative Government and Politics: The Executive (4765) ... prog 10.

7.30 Introduction to Psychology: Perception (4766) ... prog 10.

RADIO 3 (VHF)

6.00 Renaissance and reformation: The British Isles Song (A317) ... prog 10.

6.20 Biology: Control and public health: Radiological Protection and Society (A318) ... prog 6.

6.40 Literature and society: Literature and Politics: Orwell (A319) ... prog 10.

7.00 Biology: Control and public health: Radiological Protection and Society (A320) ... prog 6.

7.20 Language foundation course: Human Communication (A321) ... prog 10.

7.45 Open forum—21.

RADIO 4 (VHF)

9.10 War and society: Industrial Unrest in 1917: A Report between Arthur Henderson and Sidney ... (A322) ... prog 10.

9.30 International politics and peace research: Violence, Terrorism and the State (A323) ... prog 10.

9.50 Problems of philosophy: Existentialism in Modern Thought: Sartre (A324) ... prog 10.

10.10 Problems of mathematics: Newton and the Calculus (A325) ... prog 10.

Alternative broadcasts for North Scotland and Wales transmitters

24.00 Beginning counting—6.

Monday June 26

BBC 1

6.40 Cognitive psychology: Cognitive Potential (4751) ... prog 6.

7.05 Personality and learning: Socialisation (4752) ... prog 10.

7.30 Environmental control and public health: Rubbish (4753) ... prog 6.

BBC 2

6.40 Systems behaviour: Telecommunications (4731) ... prog 10.

7.05 Quantum theory and atomic structure: Potential Barriers and Wells (4732) ... prog 6.

7.30 Physiology of cells and organisms: Cell Physiology (4733) ... prog 10.

RADIO 3 (VHF)

6.00 Education and the arts: ... Bird. Visiting professor: Dr R. R. A. Coles. Deans of faculties: Professor C. Morris (arts); Professor G. A. Kerkut (sciences); Professor M. A. Gale (social sciences); D. E. Fordham (educational studies); Professor D. C. Jackson (law); Professor S. A. Robertson (mathematical studies). Lecturers: Dr K. M. Sharpe (history); G. M. Blue (language centre); C. M. Mason (geography); C. K. Jolly (civil engineering); W. R. Jones (adult education); Dr C. Barbatis (pathology in the faculty of medicine); Dr C. M. Taylor (primary medical care in the faculty of medicine).

6.20 Mary Wakefield: Tell Tell Your Children Part Four: Almost (1941) ... prog 6.

6.40 The Sound Symposium: Social Comment Work (1941) ... prog 10.

7.00 Open University: Advice Arts foundation course: Sacred Music ... prog 10.

7.20 Science and the state of technology: Science and the State of the Water Industry (A326) ... prog 10.

7.45 Mathematical topics: Algebra of Matrices (A327) ... prog 10.

8.05 Psychology in British education: Assessment (A328) ... prog 5.

8.20 Mathematical topics: Algebra of Matrices (A329) ... prog 5.

8.35 The Supply of Money (A330) ... prog 5.

RADIO 3 (VHF)

6.00 Renaissance and reformation: The British Isles Song (A331) ... prog 10.

6.20 Broadcasters and broadcasting: Broadcasting and Politics from ... (A332) ... prog 10.

6.40 Biology: Control and public health: Radiological Protection and Society (A333) ... prog 6.

7.00 Biology: Control and public health: Radiological Protection and Society (A334) ... prog 6.

7.20 Language foundation course: Human Communication (A335) ... prog 10.

7.45 Open forum—22.

RADIO 4 (VHF)

9.10 War and society: Industrial Unrest in 1917: A Report between Arthur Henderson and Sidney ... (A336) ... prog 10.

9.30 International politics and peace research: Violence, Terrorism and the State (A337) ... prog 10.

9.50 Problems of philosophy: Existentialism in Modern Thought: Sartre (A338) ... prog 10.

10.10 Problems of mathematics: Newton and the Calculus (A339) ... prog 10.

RADIO 3 (VHF)

24.00 History of architecture and design 1890-1939: Early Modern Buildings (A340) ... prog 12.

Fundamentals of human geography: Industrial Power in the North East (A341) ... prog 12.

Masters of prose 1648 to the present: Sermons and speeches (A342) ... prog 10.

Open University programmes June 24 to 30

Saturday June 24

BBC1

7.15* People and organisations: Amoy (T352; prog 5).

7.40* Lincoln Cathedral history 1540 to ... Ceremony and the Church (A572; prog 11).

8.05 Schooling and society: No Rewards for William Thornbery (T202; prog 10).

BBC2

7.40 Twentieth century poetry: Reading a Poem (A300; prog 10).

8.05 Environmental control and public health: Rubbish (T273; prog 6).

8.30* Arts foundation course: Art and Work (A301; prog 10).

8.55* Urban development, Chicago: Urban Landscapes 1: The Inner City (D220; prog 12).

9.20* Partial differential equations of applied mathematics: Partial Differential Equations (M321; prog 21).

9.45 Problems of philosophy: Wittgenstein and the Problem of Other Minds (A302; prog 11).

10.10 Science: an interdisciplinary approach: Significance Testing (M101; prog 10).

10.35* Materials under stress: Fatigue (T351; prog 10).

11.00 Ecology: Coppa (S325; prog 13).

11.25 The nature of chemistry: Oxidation—The Enigmatic Catalyst (S304; prog 10).

11.50* Food production systems: Today's Beef (T275; prog 10).

12.15 Drama: "The Wild Duck" (A307; prog 10).

12.35* History of architecture and design 1890-1939: Le Corbusier: The Villa Savoye (A303; prog 12).

13.30* Science foundation course: Suddenly this Summer (S101; prog 30).

13.35 Mathematics foundation course: Relations—Bringing the Changes (M101; prog 10).

14.20* Linear mathematics: Linear Programming: Duality (M261; prog 10).

RADIO 3 (VHF)

6.00 Analytic Some Theoretical Problems on Interpolation (M23 ... prog 10).

6.20* Urban development: Planning in the Age of Revolution, Paris and Vienna (A304; prog 10).

6.40 Psychology foundation course: Our Body Curriculum (T100; prog 21).

7.20* Arts foundation course: Literature and Society: Art: The Social and Economic Background (A305; prog 10).

7.40* Systems behaviour: Brighton Marina (T241; prog 4).

RADIO 4 (VHF): Not on North Scottish and Welsh Transmitters

6.05 Open Forum—19.

6.25 Kelly's Business Week: A Christian Community (A306; prog 10).

9.10* Psychology: Approaches: Are Psychic Processes Reducible to Cognition (A307; prog 6).

10.00 Language and learning: Language, Learning and Individuality (A308; prog 10).

10.20 Social work: Community work and social work: Working Rights (T420; prog 10).

10.40 Mathematics in action: Harmonic Analysis (1) (A311; prog 8).

11.00* Mathematics in action: Harmonic Analysis (2) (A312; prog 8).

11.20* Biology: Control and public health: Radiological Protection (A313; prog 6).

11.40 Biology: Control and public health: Radiological Protection and Society (A314; prog 6).

12.00 Twentieth century poetry: 1—11 Poetry (A309; prog 6).

12.20 Language and learning: Language, Learning and Individuality (A310; prog 10).

12.40* Personal development: Personal Development (T201; prog 10).

13.00 Patterns of inequality: D.P.T.C. (T206; prog 10).

13.20 Curriculum design and development: Physics Teaching Resource Education (E205; prog 13).

13.40* Environmental control and public health: Radiological Protection (T273; prog 6).

14.00* Geometry: Wings and Things (S299; prog 10).

14.20 Industrial Relations: The Minister's Role in Industrial Relations in the U.K. (D201; prog 4).

14.40* Environmental control and public health: Radiological Protection: Estimators (T4343; prog 6).

RADIO 3 (VHF): Alternative Broadcasts for North Scottish and Welsh Transmitters

24.00* Language and learning: Language, Meaning and Empiricism (L982; prog 10).

00.20* Cognitive psychology: Are Psychic Processes Reducible to Cognition (T5347; prog 6).

00.40* Biology: Control and public health: Radiological Protection and Society (T4344; prog 6).

Sunday June 25

BBC1

7.15* Geology: Boton Aspects of Limestone Deposition (S25; prog 10).

7.40* Personal mating in Britain (D205): Government and industry: Unions, ports and industry: Upper Clyde Shipbuilders (D2-25; prog 4).

8.05* Social work: Community work and society: Advocacy (D2306; prog 6).

BBC 2

7.40 National Value of Scarce Earths: Their Supply and Demand in the 1980s (T4345; prog 6).

8.05 Science foundation course: Energy: Into the Natural Sciences (S101; prog 30).

8.30* Systematic foundation course: Relations—Bringing the Changes (M101; prog 10).

8.55 Mathematics foundation course: Probability (M101; prog 12).

9.20 Man-made fibres: concepts and beliefs in today: The Programmer: Work (T252).

9.45 Science: Management: Automotive Engineering (T343; prog 7).

10.10 Elementary mathematics: Sets: Sets About Quadratic Rings (M262; prog 10).

10.35 Women handling: Tell Tell Your Children Part Four: Almost (1941) ... prog 6.

11.00 The Sound Symposium: Social Comment Work (1941) ... prog 10.

11.25* Open Forum—Advice Arts foundation course: Sacred Music ... prog 10.

11.50 Science and the state of technology: Science and the State of the Water Industry (A326) ... prog 10.

12.10* Mathematical topics: Algebra of Matrices (A327) ... prog 10.

12.35 Psychology in British education: Assessment (A328) ... prog 5.

12.50 Mathematical topics: Algebra of Matrices (A329) ... prog 5.

13.05 The Supply of Money (A330) ... prog 5.

13.20 Mathematical topics: Algebra of Matrices (A329) ... prog 5.

RADIO 3 (VHF)

6.00* Renaissance and reformation: The British Isles Song (A301; prog 10).

6.20* Broadcasters and broadcasting: Broadcasting and Politics from ... (A302; prog 10).

6.40* Biology: Control and public health: Radiological Protection and Society (A303; prog 6).

7.00 Biology: Control and public health: Radiological Protection and Society (A304; prog 6).

7.20 Language foundation course: Human Communication (A305; prog 10).

7.45* Open forum—19.

RADIO 4 (VHF)

9.10 War and society: Industrial Unrest in 1917: A Report between Arthur Henderson and Sidney ... (A501; prog 10).

9.30 International politics and peace research: Violence, Terrorism and the State (A502; prog 10).

9.50 Problems of philosophy: Existentialism in Modern Thought: Sartre (A503; prog 10).

10.10 Problems of mathematics: Newton and the Calculus (A504; prog 10).

RADIO 3 (VHF)

24.00* History of architecture and design 1890-1939: Early Modern Buildings (A305; prog 12).

Fundamentals of human geography: Industrial Power in the North East (A306; prog 12).

00.30 Masters of prose 1648 to the present: Sermons and speeches (A307; prog 10).

00.40 Religious issues: Christian Testimony (AD200; prog 10).

COURSES

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(Answerfone after 4.45 p.m.)

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Classified Advertisements Index

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Universities
Fellowships & Studentships
Polytechnics
Technical Colleges
Colleges and Institutes of Technology
Colleges of Education
Colleges of Further Education
Colleges and Institutes of Higher Education
Colleges and Departments of Art
Research Posts
Administration
Overseas
Adult Education
Librarians
General Vacancies

Official Appointments
Appointments wanted
Other classifications
Awards
Announcements
Exhibitions
Personal
Courses
Holidays and Accommodation

Universities

DAMMAM SAUDI ARABIA
KING FAISAL UNIVERSITY
COLLEGES OF MEDICINE AND MEDICAL SCIENCES

TEACHING APPOINTMENTS FOR WOMEN

Applications are invited from suitably qualified women to teach female students in the following fields:
PATHOLOGY BIOCHEMISTRY MICROBIOLOGY PHYSIOLOGY PHARMACOLOGY
Degree or equivalent degree required.
Language of instruction is English.
Positions available starting September, 1978

Salary Ranges	Monthly salary in Saudi Rials	(Approximate annual equivalent in Sterling)
Professor	SR 7,195–SR 9,655	£13,700–£18,400
Associate Professor	SR6,445–SR8,195	£12,300–£15,600
Assistant Professor	SR5,245–SR7,365	£10,000–£14,000

An additional super cent will be paid for medical qualification.
Benefits:
—Assistance with children's education costs.
—Free furnished housing.
—Travel allowance to Saudi Arabia from country of origin and return for family on first.
—Sixty days summer holidays
—Extra baggage allowance.
—No Saudi income tax.
Send complete curriculum vitae plus addresses and telephone numbers of three references to: Dr. T. Tamimi, Dean, c/o P.O. Box 9, Isleworth, Middlesex, TW7 4RJ.

UNIVERSITY OF DUBLIN Trinity College

TEMPORARY LECTURER IN LATIN

Applications are invited for the above post for the academic year 1978/79, commencing 1st October, 1978. Candidates will be required to lecture and give tutorials in Latin language and literature to Honour students and to students in General Studies.

Appointment will be made within the salary range £4,060–£4,508 p.a.

Application forms and further particulars relating to this post may be obtained from:

The Establishment Officer,
West Theatre,
Trinity College,
Dublin 2.

The closing date for receipt of applications will be 8th July, 1978.

AUSTRALIAN NATIONAL UNIVERSITY

RESEARCH SCHOOL OF PHYSICAL SCIENCES
CHAIR OF ASTRONOMY—MOUNT STROMLO AND SIDING SPRING OBSERVATORIES

The University seeks to appoint a Professor to the Chair of Astronomy. The appointee will become the Director of the Mount Stromlo and Siding Spring Observatories for a period to be agreed with the Vice-Chancellor. The responsibilities of the Observatories, which have the status of a department of the Research School of Physical Sciences in the Institute of Advanced Studies, are to undertake research and the training of graduate students in Astronomy.

The Observatories have optical telescopes at Mount Stromlo ACT and Siding Spring Mountain, N.S.W., with access to the Anglo-Australian Telescope at Siding Spring. The University expects the new Director to further the Observatories' role in major astronomical developments in Australia, including at present the pilot Australian Synthesis Radio Telescope project and the acquisition and construction of new observational equipment and facilities.

Tenure as a Professor is to retiring age of 65, with the option of retiring after age 60.

Closing date: 31 August 1978.

RESEARCH SCHOOL OF SOCIAL SCIENCES
DEPARTMENT OF HISTORY—SENIOR RESEARCH FELLOW/RESEARCH FELLOW/POSTDOCTORAL FELLOW (ONE POST)

The Department of History is closely associated with the Australian National Dictionary Centre and with the Australian Dictionary of Modern British and Irish History as well as the Australian Dictionary of Biography which provide opportunities for historical research and publication. Special attention is given to candidates in the best-established fields. Applications will be welcomed from those who have well-advanced projects which they wish to complete, as well as from others with specific short-term programmes. Appointment will be for two years. The post is available immediately but in any case the successful applicant would be expected to commence only not later than early 1979.

Closing date: 22 July 1978.

SALARIES: Salary for the Chair of Astronomy will be not less than $A31,581 per annum. Salaries for the Senior Research Fellow/Research Fellow or Postdoctoral Fellow is in accordance with qualifications and experience within the ranges: Senior Research Fellow $A20,020–24,064; Research Fellow $A14,084–19,558; Postdoctoral Fellow $A14,084–19,558 p.a. Current exchange rates ave. $A1 = 67p, $US1 = 93.

Reasonable appointment expenses are paid. Superannuation benefits are available. Assistance with housing is provided for an appointee from outside Canberra.

The University reserves the right not to make an appointment or to make an appointment by invitation at any time.

Prospective applicants should obtain the further particulars from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

LOUGHBOROUGH UNIVERSITY OF TECHNOLOGY

LECTURER IN ECONOMICS

Applications are invited for the post of LECTURER in the Department of Economics. Candidates should possess a good first or higher degree. An interest in managerial economics or willingness to develop such an interest would be an advantage.

Salary within scale £3,060–£7,308 but it is hoped to make an appointment on the lower half of the scale. Postcard requests for application forms and further particulars to Lord Bailey, Establishment Officer, Ref. Ts 2217.

Loughborough University of Technology

BRADFORD
THE UNIVERSITY
LECTURESHIP IN PHARMACOLOGY

Applicants are invited from suitably qualified graduates for appointment to a lectureship in pharmacology tenable for three years in the first instance and thereafter subject to satisfactory review and with the University and the other terms and conditions of appointment of such grade. Initial salary will be fixed according to qualifications and experience on the Lecturer Grade A scale £3,060–£7,308 per annum. Applications, naming three referees, should be sent to the Registrar, The University, Bradford, West Yorkshire BD7 1DP.

BRADFORD
THE UNIVERSITY
LECTURESHIP IN MUSIC
£3,060–£7,308

The Library would be pleased to receive offers of alternative sources of supply of the following publications which would complete sets or runs in the Library's collection: Journal of the Arnold Bax Society, Nos. 1–3 (1973–1975); Journal of the Delius Society, Nos. 1–3 (1971–1973). Offers should be sent to Serials Section, Library, University of Bradford, West Yorkshire BD7 1DP.

University of Wales
UWIST
DEPARTMENT OF TOWN PLANNING

(1) DIRECTOR
(2) SENIOR RESEARCH ASSOCIATE

TRANSPORT AND TRAFFIC STUDIES RESEARCH UNIT

applications are invited from suitably qualified and experienced persons for this newly established multi-disciplinary research unit

Salary
Director Range III
£7,074 to £8,730

Senior Research Associate
Range II
£5,730 to £7,308

Requests (quoting reference THES and post) for details and application form to Personnel Section, (Academic) UWIST Cardiff CF1 3DU

Closing date: July 25 1978

TRINITY AND ALL SAINTS' COLLEGES

Trinity and All Saints' Colleges (affiliated with the University of Leeds, form an independent institution providing studies leading to B.A.(Theology), B.Ed.(Religious Studies) and B.Th. degrees of the University of Leeds. Candidates admitted will be expected to teach to honours degree level, to participate in courses of professional education, and to contribute to current developments and research.

Applications are invited for the following posts at Lecturer II/Senior Lecturer level:

SCHOOL OF COMMUNICATION

(1) Organizational Communication.
(2) Advertising and Public Relations (professional experience at a senior level would be an advantage for this post)

SCHOOL OF MANAGEMENT SCIENCES

(3) Management Studies (in one or more of the areas: corporate planning, financial planning and control, management accounting, taxation).

DIVISION OF MATHEMATICS AND SCIENCE

(4) Physics.

Salary scales within the range Lecturer II £4,101 to £6,558; Senior Lecturer, £6,051 to £7,572

Further particulars and application forms, which should be returned within 14 days of the appearance of this advertisement, are obtainable from —

The Registrar (Applications)
Trinity and All Saints' Colleges
Brownberrie Lane
Horsforth
Leeds LS18 5HD

ULSTER
The New University
SCHOOL OF PHYSICAL SCIENCES

Lecturer in Chemistry

Applications are invited for a LECTURESHIP IN CHEMISTRY in the general area of inorganic chemistry, tenable from 1st October, 1978.

Adults only with interests in X ray crystallography and biological systems will be particularly welcome, but consideration will not be limited to these areas.

Salary scale: £3,660–£7,308 per annum (with F.S.S.U.U.S.).

Further particulars may be obtained from the Registrar, The New University of Ulster, Coleraine, Northern Ireland, to whom applications together with the names and addresses of three referees should be sent not later than 14th July, 1978 (quoting Ref. 78/62).

UNIVERSITY OF ZAMBIA

Applications are invited from suitably qualified Zambians for the post of:

ASSISTANT DEAN OF STUDENTS (COUNSELLING)

Qualifications and experience:
(a) Degree in Social Work.
(b) Six years working experience.
(c) Aged between 30 and 35 years.

NOTE: Those that applied for this post previously need not apply.

Salary scale: K4,776 to K6,108 per annum (£1 sterling equals K1.42).

Family passages; permanent and pensionable terms; medical aid scheme, various allowances. Detailed applications (two copies) with curriculum vitae and naming three referees, to be sent to Registrar, University of Zambia, PO Box 2379, Lusaka, Zambia, as soon as possible.

Further particulars of the post may be obtained from the University.

St. Mary's Hospital Medical School
(University of London)
Paddington, London W2 1PG

The Council of the Medical School seeks to appoint a

DEAN

to succeed Dr. C. H. Edwards who retires in September 1978. The appointment is likely to be for 5 years in the first instance, extendable. The appointee must be medically qualified and whilst the post is regarded as being a nearly full-time administrative appointment some clinical or research sessions could be provided if required. The salary would be commensurate with an appointment of this seniority.

Informal enquiries, in confidence, should be addressed to The Lord Bearsted, President of the Medical School Council, at the above address. Further particulars may be obtained from The Secretary, Tel. No. (01) 723 1252.

UNIVERSITY OF DUBLIN Trinity College

LECTURER IN MUSIC

Applications are invited for the above post in which the main duties will be concerned with teaching the basic techniques of composition. The College would welcome applications from string players who could assist in a practical way, advising and encouraging string players.

Salary scale: £4,060–£8,149. Appointment will be made within the range £4,060–£4,508. Marriage and children's allowances are paid and there is a non-contributory P.S.S.U. type Pension Scheme.

Further particulars and application forms may be obtained from:

The Establishment Officer,
West Theatre,
Trinity College,
Dublin 2.

who will receive completed applications up to Monday 10th July 1978.

Universities continued

UNIVERSITY OF ZAMBIA

Applications are invited for 3 posts

SENIOR RESEARCH FELLOW/RESEARCH FELLOW

IN THE RURAL DEVELOPMENT STUDIES BUREAU

Candidates must possess postgraduate qualifications in the Social Sciences from a recognised University, and preference will be given to those with experience of Socio-economic research into rural sector problems in a developing country.

Areas of interest should include small farmer development, regional resource analysis, rural industries and small scale dairying.

Salary scales: Senior Research Fellow K6,540-K7,404 p.a. Research Fellow K4,956-K5,700 p.a. (£1 sterling=K1.47). The British Government may supplement salary in range £2,220-£2,004 p.a. (sterling) for married appointees and £330-£834 p.a. (sterling) for single appointees (reviewed annually and normally free of all tax) and provide children's education allowances and holiday visit passages.

Family passages; baggage allowance, contract period of 5 years, superannuation; medical aid scheme, regular overseas leave.

Detailed applications (2 copies) with curriculum vitae and naming 3 referees to be sent to Registrar, University of Zambia, PO Box 2379, Lusaka, Zambia, by 18 July, 1978.

Applicants resident in the UK should send one copy to Inter-University Council, 90/91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

LOUGHBOROUGH UNIVERSITY OF TECHNOLOGY

LECTURER IN GEOGRAPHY

Applications are invited for a newly established lectureship in the Department of Geography. Applicants should be suitably qualified physical geographers with teaching and research interests in applied geomorphology.

Salary within scale £3,660 to £7,308. It is hoped to appoint within the lower half of the scale. Postcard requests for further details and application forms to Paul Johnson, Establishment Officer, ref. 78/PGY.

Loughborough *Leicestershire*

ABERYSTWYTH

THE UNIVERSITY COLLEGE OF WALES

DEPARTMENT OF EXTRA-MURAL STUDIES

Applications are invited for the post of full-time TUTOR in ART in the above department, to start on 1 January, 1979. Applicants should be highly qualified academically, interested in Liberal Education, and with successful experience in teaching adults.

Appointment on Lecturer Scale (£3,660-£7,308 p.a. under review). Commencing salary will be determined according to the age, qualifications and experience of the person appointed.

Further particulars may be obtained from the Registrar, Old College, Aberystwyth, to whom applications should be submitted by 7 July, 1978.

ASTON IN BIRMINGHAM

THE UNIVERSITY

MANAGEMENT CENTRE

LECTURER IN BUSINESS POLICY

Applications are invited for the above post from candidates who have a degree or a professional qualification with research or teaching experience in the field or significant, relevant practical experience.

Business Policy is a rapidly developing subject area in the Management Centre and further developments in research as well as in the teaching on Postgraduate, Undergraduate and Post-experience programmes are possible. The post will be on the basis of a fixed term two-year appointment in the first instance although it is possible that in due course there may be a permanent appointment for which the successful candidate could apply.

Commencing salary will be within the range £3,660 to £5,946 per annum on a scale rising to £7,308 per annum (under review).

Application forms and further particulars may be obtained from the Staff Officer (quoting reference number 2827 [illegible]), University of Aston in Birmingham, Gosta Green, Birmingham B4 7ET, to whom applications should be returned not later than 17th July, 1978.

ABERYSTWYTH

THE UNIVERSITY COLLEGE OF WALES

DEPARTMENT OF POLITICAL SCIENCE

Applications are invited for a LECTURESHIP in POLITICAL THEORY from October 1st, 1978, or as soon as possible thereafter.

Salary Scale, £3,660-£7,308 p.a.

Further particulars and application forms obtainable from the Registrar. Closing date: July 3rd, 1978.

BATH

THE UNIVERSITY

Applications are invited for a LECTURESHIP IN PLANT VIROLOGY in the SCHOOL OF BIOLOGICAL SCIENCES

Applicants should hold a Ph.D. degree, and be qualified to teach general virology to students in the School. The person appointed will be expected to carry out research in some branch of plant virology.

Starting salary will be set in the lower part of the salary scale £3,660-£7,308 per annum.

Further particulars and application forms available from the Personnel Officer, University of Bath, Bath BA2 7AY, quoting reference 78/[illegible]. Closing date for applications 20th July, 1978.

BRADFORD

THE UNIVERSITY

SENIOR LECTURER IN PEACE STUDIES

Applications are invited for the above post from candidates with suitable qualifications in Social Science and interest in an interdisciplinary approach to teaching in the context of the study of peace, preferably with experience and publications in Political Science or Sociology. Salary on scale £7,073 to £8,[illegible] per annum.

Further details, application form (for return by Friday, 14 July, 1978) obtainable from the Registrar, Ref. PS/[illegible], University of Bradford, W. Yorks BD7 1DP.

BRADFORD

THE UNIVERSITY

ADMINISTRATIVE ASSISTANT STUDENT SERVICES

Applications are invited from graduates or professionally qualified persons for the post of ADMINISTRATIVE ASSISTANT to the Senior Warden and Director of Student Services. The varied duties and responsibilities of the post relate to the management of the University's residential accommodation and the administration and co-ordination of student welfare services. This post should be particularly attractive to candidates interested in the welfare of students and the management of a unit [illegible] and who wish to make a career in University Administration.

Salary will be on Scale 1A £3,[illegible] to £6,178 per annum.

Further particulars and application forms from the Personnel Officer, University of Bradford, Bradford, BD7 1DP. [illegible]

DURHAM

THE UNIVERSITY

LECTURESHIP IN ANTHROPOLOGY

Applications are invited for the post of LECTURER in ANTHROPOLOGY, specialising in some aspect of Social Anthropology. The post is tenable from October 1, 1978, or such other date as may be arranged.

Salary will be on the scale £3,660 to £7,308 per annum with superannuation.

Further particulars from the Registrar and Secretary, Old Shire Hall, Durham, DH1 3HP, to whom applications (3 copies), naming three referees, should be sent by July 5, 1978.

DURHAM

THE UNIVERSITY

CHAIR OF ACCOUNTANCY

Applications are invited for the SPICER AND PEGLER CHAIR OF ACCOUNTANCY in the Department of Economics to be filled as soon as possible.

The appointment will be made on the Professorial Salary scale together with the usual pension arrangements.

Applications (three copies), including the names of three referees, must be submitted not later than Friday, July 28, 1978, to the Registrar and Secretary, Old Shire Hall, Durham DH1 3HP, from whom further particulars may be obtained. (Candidates outside the British Isles may submit one copy only.)

HULL

THE UNIVERSITY

SECOND RESEARCH ASSISTANTSHIP in the Department of SOCIAL ADMINISTRATION

A second Research Assistant is required to work on a two-year research project supported by the Department of Employment under the direction of Mr Brian Showler into the experience of young people in the labour market. Applicants should be graduates in Social Administration, Sociology or Economics with an interest in local labour market studies, and preferably with research experience including social survey methods.

Salary on the scale (1B): £3,[illegible] to £4,601 per annum.

Applications (four copies) giving details of age, qualifications and experience, together with the names of two referees should be sent by July 14, 1978, to the Registrar, University of Hull, Hull HU6 7RX, from whom further particulars may be obtained.

EDINBURGH

THE UNIVERSITY

CHAIR OF LOGIC AND METAPHYSICS

Applications are invited for the Chair of Logic and Metaphysics. The present holder of this Chair, Professor W. H. Walsh, retires on 30th September, 1979.

Appropriate areas of philosophical interest are not narrowly defined. They include metaphysics, epistemology, logic and philosophy of logic, history of philosophy.

Further particulars may be obtained from the Secretary to the University, University of Edinburgh, Old College, South Bridge, Edinburgh, EH8 9YL, with whom applications (12 copies) should be lodged not later than 30th September, 1978. Overseas candidates may submit one copy of the application. Please quote Reference 9/78.

EDINBURGH

THE UNIVERSITY

DEPARTMENT OF SOCIAL ADMINISTRATION

Applications are invited for the post of TEMPORARY LECTURER in the DEPARTMENT of SOCIAL ADMINISTRATION for a period of 12 months from 1st October, 1978. The person appointed will be expected to contribute to the teaching of social administration over a range of undergraduate courses.

Salary within range £3,660 to £7,308 per annum, superannuable.

Further particulars may be obtained from the Department of Social Administration, Adam Ferguson Building, George Square, Edinburgh EH8 9LL.

Closing date for applications —3rd July, 1978. Please quote Reference 1052.

EXETER

THE UNIVERSITY

SRC RESEARCH ASSISTANTSHIP

STUDY OF VIBRATION CHARACTERISTICS OF WINDMILLS

The Wind Energy Group have a vacancy for a Post-Doctoral Research Assistant experienced in Dynamic Structural and Vibrational Analysis, to join a team which is studying wind machines. The SRC have awarded a substantial Research Contract for this study which is aimed at the development of methods of dynamic stress analysis of working wind rotors, starting with the University's 3m diameter prototype vertical axis machine which is controlled through its variable blade-pitch angle.

The appointment will be for up to 2½ years from October, 1978, and will be within the scale £3,[illegible] to £4,[illegible] p.a. Superannuation is provided within the USS scheme.

Applicants should hold a Ph.D. or equivalent qualification, experience in vibrational analysis is essential. Experience in aerodynamics would be an advantage.

For further particulars write to Professor P. M. T. Lacey, University of Exeter, Applied Science Building, North Park Road, Exeter EX4 4QL.

Applications (3 copies) and the names of three referees should be sent to Mrs. Doreen Wotton, Administrative Assistant (Appointments), Northcote House, The Queen's Drive, Exeter EX4 4QJ by Wednesday, July 12, 1978. Please quote reference No. 7179.

GLASGOW

THE UNIVERSITY

LECTURESHIP IN GEOGRAPHY

Applications are invited for a LECTURESHIP in GEOGRAPHY which will be available from 1st October, 1978. Preference may be given to candidates able to combine a research interest with field experience outside Britain and North America.

The initial salary will be within the range £3,660 to £5,301 per annum of the Lecturers' scale of £3,660 to £7,308 per annum according to qualifications and experience. Appropriate Superannuation Scheme will apply.

Further particulars may be had from the Secretary of the University Court (Room 11), The University of Glasgow, Glasgow G12 8QQ, with whom applications (8 copies), giving the names and addresses of three referees should be lodged on or before 31st August, 1978.

In reply please quote Ref. No. 4160T.

GLASGOW

THE UNIVERSITY

LECTURESHIP IN ENGLISH LITERATURE

Applications are invited for a LECTURESHIP in ENGLISH LITERATURE. The salary scale will be within the range £3,660 to £5,982 per annum of the Lecturers' scale of £3,660 to £7,308 per annum. Initial placement according to qualifications and experience. Appropriate Superannuation Scheme will apply.

Further particulars may be had from the Secretary of the University Court (Room 11), The University of Glasgow, Glasgow G12 8QQ, with whom applications (8 copies), giving the names and addresses of three referees, should be lodged on or before July 17, 1978.

In reply please quote Ref. No. 4178T.

HULL

THE UNIVERSITY

PART-TIME LECTURER IN EDUCATION

Applications are invited for a half-time Lectureship, available from 1st October, 1978, in any of the following fields: Guidance and Counselling, Education with reference to the Field of Handicap or Middle Management in Secondary Schools.

Salary will be pro-rata on the scale £3,660 to £7,308 per annum.

Applications (six copies) giving details of age, qualifications and experience, together with the names of three persons to whom reference may be made should be sent by 3rd July 1978 to the Registrar, University of Hull, Hull HU6 7RX from whom further particulars may be obtained.

EAST ANGLIA

THE UNIVERSITY

Norwich

LECTURESHIP IN ENGLISH AND AMERICAN LITERATURE

Applications are invited for a LECTURESHIP in ENGLISH and AMERICAN LITERATURE. Preferred areas include 19th-century English literature, and American Literature before 1900. Ability to develop creative writing may be an advantage. Initial salary within the range £3,660-£4,601 on the scale £3,660-£7,308 plus U.S.S./U.S.S. benefits.

Applications (one copy only) which should contain a full curriculum vitae including exact date of birth together with the names and addresses of three persons to whom reference may be made, should be lodged with the Establishment Officer, University of East Anglia, Norwich NR4 7TJ, from whom further particulars may be obtained (telephone 0603 56161, ext. 2126) not later than 30th June, 1978. No forms of application are issued. In naming three referees you are requested to give only the names of those who can immediately be approached by the University.

EAST ANGLIA

THE UNIVERSITY

Norwich

LECTURER IN CHEMICAL EDUCATION

In the School of Chemical Sciences. The person appointed will have had an organic chemistry background but will intend to make a further career in chemical education. He or she will join the well-established group at U.E.A. which studies all aspects of the teaching and learning of chemistry. The person appointed will teach in the undergraduate and postgraduate courses in chemical education together with a substantial amount of teaching organic chemistry at undergraduate level. Salary will be within the range £3,660-£4,601 on the scale £3,660 to £7,308 plus U.S.S. benefits.

Applications (one copy only) which should contain a full curriculum vitae including exact date of birth together with the names and addresses of three persons to whom reference may be made, should be lodged with the Establishment Officer, University of East Anglia, Norwich NR4 7TJ, from whom further particulars may be obtained (telephone 0603 56161, ext. 2126) not later than August 1, 1978. No forms of application are issued. In naming three referees you are requested to give only the names of those who can immediately be approached by the University.

READING

THE UNIVERSITY

DEPARTMENT OF AGRICULTURAL ECONOMICS AND MANAGEMENT (Second advertisement)

Applications are invited for a LECTURESHIP in the DEPARTMENT of AGRICULTURAL ECONOMICS and MANAGEMENT. Candidates should be willing to pursue research and teach, in some part of the field of either Food Economics in a broad sense, or Food Business Management and Marketing. Economic, Food Economics and experience of quantitative research methods would be an advantage though other supporting qualifications can be considered.

The person appointed should take up duties on 1st October, 1978, or such other date as may be arranged. The appointment is for a fixed period of three years.

Previous applicants need not re-apply.

Further information may be obtained from the Registrar (Room 214, Whiteknights House), The University, Whiteknights, Reading RG6 2AH by whom applications should be received not later than 7th July, 1978.

SALFORD

THE UNIVERSITY

DEPARTMENT OF SOCIOLOGICAL AND POLITICAL STUDIES

LECTURESHIP IN SOCIOLOGY

Applicants should have teaching and research interests in Applied Sociology and the Social Structure of Modern Britain.

Salary Scale £3,660 to £7,308 per annum; U.S.S.

Application forms and further particulars available from the Registrar, University of Salford, Salford M5 4WT (telephone 061-736 5843, extension 214) to whom completed applications should be returned by 17 July, 1978, quoting reference 1[illegible]/THES.

SURREY

THE UNIVERSITY

ACCOMMODATION OFFICER

Applications are invited for the appointment of ACCOMMODATION OFFICER in the University Secretary's Department. The work will cover the provision of lodgings for students in Guildford and nearby districts, the allocation of places in the University's residential accommodation and the administration of an estate of student residences at present being built about 1½-2 miles from the University.

The appointment demands energy, resourcefulness, common sense and a sympathetic understanding of the problems associated with student accommodation.

Academic and other qualifications, although useful, are not as important as the right basic qualities and personality of the appointee. Previous experience in a similar post would be an advantage.

Salary on Grade 1A Scale, £3,660 to £6,178 p.a. plus U.S.S. Superannuation.

Further particulars may be obtained from the Assistant Secretary (Personnel), University of Surrey, Guildford, Surrey, GU2 5XH, or telephone Guildford 71281, Ext. 452. Applications, from men and women, in the form of a curriculum vitae, including the names and addresses of two referees, should be sent to the above by 14 July, 1978.

HULL

THE UNIVERSITY

DEPARTMENT OF SOCIOLOGY AND SOCIAL ANTHROPOLOGY

Applications are invited for a one-year temporary lectureship in Sociology to replace a senior member of staff for the session 1978-79. The appointee will be required to participate in teaching sociological theory at advanced third-year level. Someone interested in also teaching race relations may be preferred.

Salary scale: £3,660-£7,308 per annum.

Applications (6 copies), which should give full details of education, qualifications, teaching and research, together with the names of three referees should be sent by 30 June, 1978, to the Registrar, The University of Hull, Hull HU6 7RX, from whom further particulars may be obtained.

KEELE

THE UNIVERSITY

LECTURESHIP IN ELECTRONICS

Applications invited for post of LECTURER in ELECTRONICS tenable from 1st October, 1978. Electronics is taught at undergraduate level both as a single honours subject and as part of a joint honours combination. The Department's research interests include Digital and Microwave Instrumentation, Computer Aided Design, Magnetic Resonance, Telecommunications, Medical Electronics, Electrical and Surface Physics.

Appointment on first five points of the Lecturer scale £3,660-£5,301, full scale rising to £7,308 per annum, with membership of Universities Superannuation Scheme.

Further particulars and application forms from the Registrar, The University, Keele, Staffs, ST5 5BG, to whom completed forms should be returned by 12th July, 1978.

KENT

THE UNIVERSITY

AT CANTERBURY

FACULTY OF HUMANITIES

LECTURER IN DRAMA

Applications are invited for an appointment as LECTURER in DRAMA from January 1, 1979. Preference will be given to candidates with experience of teaching Drama through practical classes or with professional theatre experience.

Salary will be on the lower part of the lecturers' scale £3,660-£7,308 per annum.

Further particulars and application forms may be obtained from the Senior Assistant Registrar, Faculty of Humanities, The Registry, The University, Canterbury, Kent, quoting reference A 19/78, to whom completed application should be received not later than July 14, 1978.

KENT

WYE COLLEGE

(University of London)

Applications are invited for the post of ASSISTANT LIBRARIAN in the College Library. Candidates should have a degree, preferably in Economics or Modern Languages and a professional qualification.

Salary on the national Librarian Scale 1A £3,660-£6,178 per annum. The appointment is expected to be made at the lower end of the scale.

Further details from the Secretary, Wye College, Ashford, Kent TN25 5AH, to whom applications should be addressed. Closing date 10th July 1978.

LIVERPOOL

THE UNIVERSITY

DEPARTMENT OF POLITICAL THEORY AND INSTITUTIONS

Applications are invited for the post of LECTURER (Special Appointment) in PUBLIC ADMINISTRATION renewable annually, for a maximum of three years from 1st October, 1978. The duties are primarily concerned with teaching courses for public servants from this country and overseas who have been seconded to the University for training on public administration courses at undergraduate and postgraduate level.

The appointment will be made within the range £3,660 to £4,601 per annum on a scale rising to £7,308 per annum.

Applications, together with the names of three referees, should be received not later than 14th July, 1978, by The Registrar, P.O. Box 147, Liverpool, L69 3BX, from whom further particulars may be obtained. Quote Ref. RV/[illegible]/THES.

LONDON

THE UNIVERSITY

THE LONDON SCHOOL OF ECONOMICS

LECTURESHIP IN GOVERNMENT

Applications are invited for appointment from 1st October, 1978, or as soon as possible thereafter to a lectureship in British or West European government and public administration, with special interest in Policy Studies.

Appointment will be on the salary scale for lecturers of £3,660 to £7,308 a year, plus £450 a year London Allowance and superannuation benefits. In assessing the starting salary, consideration will be given to qualifications, age and experience.

Applications should be received not later than 14th July, 1978, by the Administrative Officer, Room H614, The London School of Economics and Political Science, Houghton Street, London WC2A 2AE, from whom application forms may be obtained.

Applicants for this post which was advertised previously who wish their applications to be reconsidered should inform the Officer at the above address.

LANCASTER

THE UNIVERSITY

Required in October, 1978, for one year in the first instance, LECTOR to teach ARABIC LANGUAGE in the DEPARTMENT of ARABIC and ISLAMIC STUDIES. Experience in language teaching and primary qualifications, ability to lecture on aspects of Arabic and Islamic [illegible] or to conduct seminars would be a distinct advantage.

Salary on the scale £[illegible] to £3,160.

Further particulars may be obtained (quoting ref. L[illegible]/A) from the Establishment Officer, University House, Lancaster LA1 4YW, to whom applications (five copies) naming three referees, should be sent not later than 10th July, 1978.

LONDON

THE UNIVERSITY

GOLDSMITHS' COLLEGE

New Cross, London, SE14

DEPARTMENT OF BIOLOGICAL SCIENCES

Applications are invited for a full-time Demonstrator in the above department to assist in the teaching of first year B.Sc. Biology. Candidates should have a 1st Honours degree in Biology. Postgraduate experience would be an advantage. The post is tenable from October 1978 and would be for one year.

Salary within the range £3,515 by four increments to £4,721 per annum plus £450 London Weighting and superannuation benefits.

Write for further particulars enclosing a medium-size stamped addressed envelope to the Personnel Officer, to whom applications should be sent by 7th July 1978.

LONDON

IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY

An immediate vacancy exists for a

LECTURER IN MINERAL RESOURCES ENGINEERING

We are looking for someone between 25-35 years of age with a good honours degree, preferably with mining experience but other backgrounds may be acceptable. The holder will be expected to take an interest in the fields of operational research, systems analysis and computer applications.

The successful candidate will be required to lecture to undergraduate and postgraduate levels, and be expected to undertake research in the above fields with particular reference to mining.

Salary will be within the lecturer scale £3,660-£7,308 per annum plus £450 p.a. London Allowance.

Enquiries to Professor [illegible], Head of Department of Mineral Resources Engineering, Imperial College of Science and Technology, London, SW7 2BP, 01-589 5111 ext 2[illegible], from whom further details and application form can be obtained.

NOTTINGHAM

THE UNIVERSITY

RESEARCH FELLOW

£3,660 to £4,601

Applications are invited for the post of RESEARCH FELLOW to join a team undertaking a study of attitudes, perceptions and applications of [illegible] city residents. The project is funded by the Department of the Environment as part of the Inner Cities Research Programme.

Applicants should preferably possess a higher degree in social psychology or sociology and should be experienced in the use of attitude measurement techniques, social and demographic questionnaire design and analysis. Experience in the environmental planning field would be an additional advantage.

The appointment will be for two years, from August 1st, 1978, or as soon as possible thereafter.

Further details and application forms, returnable not later than 7th July 1978, from the Institute of Planning Studies, University of Nottingham, Nottingham NG7 2RD.

THE OPEN UNIVERSITY

EARTH SCIENCES PROJECTS MANAGER

The Department of Earth Sciences at the Open University is now 10 years strong and, as well as operating successful courses of our undergraduate courses to a student population of over 3,000, vigorously pursued research. Technical support to Earth Science departments has been established and a service to this course and its research in the [illegible] and [illegible] course design analysis, which at the present [illegible] by industry and research [illegible] national and regional [illegible] institutes, has been [illegible]. Also, the department [illegible] the past two years [illegible] several major research [illegible]. It is deemed possible to appoint someone for further [illegible] [illegible] appropriate to the [illegible] experience and research [illegible] academic and research staff.

The University seeks to appoint by 1st October 1978 or as soon as possible thereafter, a Projects Manager to control and direct services [illegible] of technical staff [illegible] existing projects and actively seek [illegible] in part for further research [illegible]. Applicants (male or female) should have a degree with Earth Sciences, together with experience in graduate level research and/or research administration. Appointment will be at the first instance [illegible] scale £3,[illegible] to £7,308 and further [illegible]. Application forms and further information can be obtained from the Personnel Division (Ref.12), The Open University, Walton Hall, Milton Keynes, MK7 6AA, or telephone Milton Keynes [illegible] (there is an answerphone [illegible] [illegible] office hours). Closing date for forms to be returned by 6th July.

Universities continued

BRADFORD

THE UNIVERSITY

LECTURESHIP IN ECONOMICS

Applications are invited for the above post. Salary within scale £3,660 to £7,308 per annum. Superannuable.

Further particulars and application forms (to be returned by 7 July) obtainable from the Registrar, Reference E/L/[illegible], University of Bradford, West Yorkshire BD7 1DP.

BRISTOL

THE UNIVERSITY

SCHOOL OF EDUCATION

Two vacancies exist as follows:

HALF-TIME RESEARCH ASSISTANTSHIP

The Research Unit of the School of Education requires a permanent half-time Research Assistant to work in the field of computing.

The applicant should be a graduate with some experience of systems programming and should preferably be acquainted with mini computer applications. He or she should have a good working knowledge of Fortran and should be able to work with an assembler code or machine code of some kind.

There will be opportunities for teaching computing and for pursuing individual research interests in relation to computing.

Salary Scale: Range 1A. Salary from half of £3,660 per annum, or from half £4,130 per annum for persons aged 26 years or over.

LANGUAGE DEVELOPMENT RESEARCH PROGRAMME

A half-time COMPUTER PROGRAMMER is required to write programmes for the analysis of a large data base collected by the Language Development Research Programme. The successful applicant should have a good working knowledge of Fortran and practical experience in the use of statistics.

The appointment will be for one year, starting 1st August, 1978, or as soon after that as possible. Salary will be in the range (half of) £3,660 to £3,[illegible] per annum. This post may be held in conjunction with the post mentioned above.

Further particulars may be obtained from the Secretary, University of Bristol, Senate House, Bristol BS8 1TH, to whom applications, together with a curriculum vitae and the names and addresses of three referees, should be sent by 7th July, 1978.

LONDON

THE UNIVERSITY

KING'S COLLEGE, COMPUTER UNIT

Applications are invited for the post of GRADUATE PROGRAM ADVISOR. The successful candidate will probably have a good honours degree together with practical experience in computing. The Program Advisory Group not only offers advice and assistance to computer users within the College, which has immediate access to the large CDC computer complex at the University Computer Centre, but also provides lectures on computer programming and related topics. There is considerable scope for the solution of specialised user problems and the opportunity for individual research.

Appointment will be on the Academic Related Programmer Ib scale within the range £3,[illegible]-£5,[illegible] plus £450 London Allowance p.a. Further particulars from the Computing Manager (Ref. 100575 THES), Computer Unit, King's College London, Strand, London, WC2R 2LS.

NEW ZEALAND

VICTORIA UNIVERSITY OF WELLINGTON

FOUNDATION CHAIR OF LIBRARIANSHIP

The Council of the Victoria University of Wellington invites applications from men and women for its Foundation Chair of Librarianship. The Chairman of a new Department will be expected to play a leading role in determining the content of that Department's academic programme. The national responsibility for a one-year graduate Diploma course for 45 students and will be responsible for teaching in 1979. Studies at the masters and doctorate level will be initiated at an early stage.

The qualifications and experience of the person to be appointed to the Chair should give him or her the vision and leadership to the new department and to library education in New Zealand. The successful candidate will be expected to establish forward-looking university courses in librarianship that extend the traditional study of books, collections and libraries to include modern techniques for the organisation, storage and retrieval of information and library systems analysis, mechanisation and automation. It is also important that candidates have research experience and be able to offer leadership in the development of research programmes.

The successful candidate will be expected to take up duties in late 1978 or very early 1979.

Closing date: 31st July, 1978.

The salary range for professors is NZ$20,804 to NZ$25,431 per annum, including cost of living and other allowances. Salary scales are under review and a general salary increase is expected. Fares and removal expenses to New Zealand.

Prospective applicants should obtain conditions of appointment and application procedure from the Secretary General, Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

CARDIFF

UNIVERSITY COLLEGE

Applications are invited for the post of COLLEGE SECRETARY in Administrative Grade IV (related to the professorial salary range). Duties to commence 1st January 1979 or as soon as possible thereafter.

Applications (two copies), together with the names and addresses of three referees, should be forwarded to the Vice-Principal (Administration) and Registrar, University College, P.O. Box 78, Cardiff, CF1 1XL, from whom further particulars may be obtained. Closing date 1st September 1978. Please quote reference 1520.

CARDIFF

UNIVERSITY COLLEGE

Applications are invited for the post of

LECTURER

in the

EDUCATION OF WOMEN AND GIRLS

with special reference to developing countries, in the DEPARTMENT of EDUCATION. Salary range £3,660 to £7,308. Duties to commence 1st October 1978.

Applications (2 copies), together with the names and addresses of two referees, should be forwarded to the Vice-Principal (Administration) and Registrar, University College, P.O. Box 78, Cardiff, CF1 1XL, from whom further particulars may be obtained. Closing date 7th July, 1978. Please quote reference 1548.

NORWICH

UNIVERSITY OF EAST ANGLIA

LECTURESHIP

In Politics in the School of Economic and Social Studies from 1 September, 1978. Preference will be given to candidates having a willingness to teach in the area of urban and regional politics, and of politics of communist states, international politics. Salary will be within the range £3,660-£4,601 on the scale £3,660-£7,308.

Applications (one copy only), which should contain a full curriculum vitae including exact date of birth together with the names and addresses of three persons to whom reference may be made should be lodged with the Establishment Officer, University of East Anglia, Norwich NR4 7TJ, from whom further particulars may be obtained (telephone 0603 56161, ext. 2126) by no later than 7 July, 1978. No forms of application are issued. In naming three referees you are requested to give only the names of those who can immediately be approached by the University.

LONDON

THE UNIVERSITY

THE LONDON SCHOOL OF ECONOMICS

TEMPORARY LECTURESHIPS IN ANTHROPOLOGY

Applications are invited for appointment for the session 1978-79 to two temporary one-year lectureships in Social Anthropology. It is expected that appointments will be made at the lower end of the salary scale for lecturers, which is £3,660 to £7,308 a year plus £450 a year London allowance and superannuation benefits. In assessing the starting salary, consideration will be given to qualifications, age and experience.

Applications should not be received later than 14th July, 1978 by the Administrative Officer (Room H614), the London School of Economics and Political Science, Houghton Street, London WC2A 2AE, from whom application forms may be obtained.

OXFORD

THE UNIVERSITY OF

JUNIOR LECTURESHIPS IN MATHEMATICS AND MATHEMATICAL LOGIC

Applications are invited for two Junior Lectureships, one in any branch of Pure or Applied Mathematics and the other in Mathematical Logic. The appointments are for a period of three years from 1st October 1978, or as soon as possible thereafter and are not renewable. Salary will be on the scale (effective from 1st October 1977) £3,[illegible] plus £[illegible] to £3,[illegible].

Application on a form available from the Secretary of Faculties, University Offices, Wellington Square, Oxford OX1 2JD, as soon as possible and not later than 7th July, 1978.

NEWCASTLE UPON TYNE

THE UNIVERSITY

DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

CHAIR OF ELECTRONIC ENGINEERING

Applications are invited from candidates whose interests and experience are in the field of electronics for the Chair of Electronic Engineering. The successful candidate will be expected to [illegible] determined [illegible] to stimulate research and teaching in the department [illegible] with the electronics industry.

This post will be available from 1st October 1978, following the resignation of the present holder, Professor [illegible] [illegible] [illegible] appointment in the [illegible] Federal Republic. Salary will be in accordance with the Professorial scale [illegible] membership of the appropriate superannuation scheme will be required.

Further particulars may be obtained from the Deputy Registrar, University of Newcastle upon Tyne, 6 Kensington Terrace, Newcastle upon Tyne NE1 7RU, with whom applications (15 copies), giving the names of three referees, should be lodged not later than 17th August, 1978. Candidates from overseas may submit one copy only.

READING

THE UNIVERSITY

LECTURESHIPS IN BOTANY

Applications are invited for a permanent LECTURESHIP and a three-year fixed term Lectureship. For the former, candidates should be qualified in Plant Physiology or Biochemistry and preferably with special experience in whole plant physiology or photo-morphogenesis. For the fixed term appointment, candidates should have experience in Plant Taxonomy and Biosystematics. Duties will include teaching both undergraduate and postgraduate on the M.Sc. Taxonomy course.

The persons appointed should take up duties on 1st October, 1978.

Further information may be obtained from the Registrar (Room 214, Whiteknights House), The University, Whiteknights, Reading RG6 2AH, by whom applications should be received not later than 14 July 1978.

READING

THE UNIVERSITY

LECTURESHIP IN PSYCHOLOGY

Applications are invited for a LECTURESHIP in PSYCHOLOGY.

Candidates should have a strong background in Experimental Psychology and be prepared to teach and carry out research in Cognitive Psychology.

The person appointed should take up duties on 1 October, 1978, or as soon as possible thereafter.

Further information may be obtained from the Registrar (Room 214, Whiteknights House), The University, Whiteknights, Reading RG6 2AH, by whom applications should be received not later than 31 August, 1978.

MANCHESTER

THE UNIVERSITY

RESEARCH ASSISTANT IN DECISION THEORY

Applications invited for this post to work on computational comparisons of existing algorithms for Markov Decision Processes and development of computationally efficient algorithms, for three years from October 1st. Candidates should be graduates in Mathematics or a closely related subject, with some research experience and the ability to translate ideas proposed in the literature into efficient computer programmes. Some familiarity with Markov chain theory an advantage. Initial salary £3,[illegible] to £4,130 per annum. Superannuation.

Applications, with curriculum vitae and names of two referees, should be sent by July 15th, 1978, to Professor D. J. White, Department of Decision Theory, The University, Manchester M13 9PL.

MANCHESTER

THE UNIVERSITY

ADMINISTRATIVE ASSISTANT

Applications are invited for a post in the Registrar's Department from candidates with a first or upper second class Honours degree and/or a higher degree.

Salary range per annum: £3,660 to £6,178. Superannuation.

Further particulars and application forms (returnable by July 7th) from the Registrar, The University, Manchester M13 9PL. Quote reference: 1[illegible]/78/THES.

MIDDLESEX

VICTORIA HISTORY OF THE COUNTIES OF ENGLAND

ASSISTANT EDITOR

Applicants should have an honours degree in History or a related subject, a good knowledge of Latin, and some postgraduate experience.

Salary on the university lecturer's scale.

Further particulars from the Secretary and Librarian, Institute of Historical Research, University of London, Senate House, London WC1E 7HU. Closing date, 1st August.

NORWICH

UNIVERSITY OF EAST ANGLIA

LECTURESHIP IN DEVELOPMENT STUDIES

(Regional Planning and Spatial Analysis)

Applications are invited for the post of Lecturer in the School of Development Studies, with particular reference to spatial elements of social and economic change and development, regional analysis and regional planning. The successful applicant will be expected to teach at all levels of the undergraduate and graduate programmes and develop a strong commitment to interdisciplinary research in the field of social change and/or development policy and planning.

The successful candidate will become a member of the Overseas Development Group and may expect to spend up to one third of his/her time on externally financed projects, usually overseas. Salary will initially be within the range £3,660-£4,601 (although in exceptional circumstances an appointment may be made beyond this point) on the lecturer scale £3,660-£7,308 plus U.S.S./U.S.S. benefits.

Applications (one copy only) which should contain a full curriculum vitae including exact date of birth together with the names and addresses of three persons to whom reference may be made, should be lodged with the Establishment Officer, University of East Anglia, Norwich NR4 7TJ, from whom further particulars may be obtained (telephone 0603 56161, ext. 2126) not later than 31st July, 1978. No forms of application are issued. In naming three referees you are requested to give only the names of those who can immediately be approached. It is hoped that the successful applicant will be able to take up appointment from October, 1978.

NEW ZEALAND

MASSEY UNIVERSITY

Palmerston North

LECTURER IN EDUCATION

Applications are invited for the above-mentioned position in the Department of Education. The candidate appointed will act under the direction of the Head of Department of Education and may be required to undertake duties related to extra-mural tuition in addition to internal teaching and research.

Special consideration will be given to applicants who, besides having appropriate general qualifications, are specialised in human development, foundations of education, or some professional field in education and are capable of participating in the in-service courses of the Diploma in Education and the Bachelor of Education degree within the Faculty.

The successful applicant will be expected to take up appointment on 1st January 1979 or as soon as possible thereafter.

Salary: NZ$10,405 to NZ$12,905.

Further details of the position, and of the University, together with conditions of appointment and information to be supplied by applicants, may be obtained from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London, WC1H 0PF, or the Registrar of the University.

Applications close on 31st August 1978.

NEW ZEALAND

MASSEY UNIVERSITY

Palmerston North

LECTURER IN FRENCH

Applications are invited for the position of LECTURER in FRENCH within the Department of Modern Languages.

French Language and Literature are offered for the B.A. and B.Ed. degrees, internally and extramurally, and for the M.A. degree. Applicants should state in their applications the particular field or fields of study in which they have experience or wish to specialise.

The salary will be in the range NZ$10,405 to NZ$12,905.

Further details of the position and of the University, together with the general conditions of appointment may be obtained from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF, or from the Registrar of the University.

Applications close on 31 July, 1978.

LONDON

UNIVERSITY COLLEGE

DEPARTMENTS OF LATIN AND GREEK

Applications are invited for a TEMPORARY LECTURESHIP in LATIN and GREEK. Appointment from 1 October 1978, to 30 September 1979. Salary [illegible] £3,[illegible] plus £450 London Allowance.

Applications should be sent by 14th July to Assistant Secretary (Personnel), (THES), University College London, Gower St., London WC1E 6BT from whom further particulars may be obtained.

LONDON

THE UNIVERSITY

CHAIR OF CHINESE, TENABLE AT THE SCHOOL OF ORIENTAL AND AFRICAN STUDIES

The Senate invites applications for the above Chair which becomes vacant on 1st October 1978.

Intending candidates should obtain further information from the Academic Registrar (THES), Senate House, Malet Street, London WC1E 7HU, before submitting applications (10 copies). Closing date: 31 July, 1978.

MIDDLESEX

BRUNEL UNIVERSITY

MATHEMATICS DEPARTMENT

TEMPORARY LECTURESHIP IN MATHEMATICS

The Mathematics Department has a vacancy for one temporary lecturer for the academic year 1 October 1978 to 30 September 1979 to teach mathematics to students of the Mathematics Department and possibly other Departments. The vacancy is made possible because of the secondment of an established lecturer to a special project outside the Department.

The salary will be within the first three points of the Lecturer scale £3,660 to £4,130 plus £450 London Allowance.

Write for application form and further details to the Assistant Secretary (Establishment), Brunel University, Uxbridge, Middlesex, UB8 3PH, or telephone Uxbridge 37188, extension 30. Closing date: 7 July, 1978.

MIDDLESEX

BRUNEL UNIVERSITY

Uxbridge

LECTURESHIPS

Applications are invited for two LECTURESHIPS in the Department of APPLIED BIOLOGY in the School of Biological Sciences. Successful candidates will be expected to take up duty on 1st October 1978. One of the Lectureships will be in the general field of Zoology but will require the ability to teach to final degree standard in Applied Entomology. The second post will require teaching to final degree standard in Vertebrate Physiology. Both Lecturers will be encouraged to contribute to postgraduate as well as undergraduate teaching, and it is anticipated that they will collaborate with existing staff in research.

Salary within the Lecturer scale (£3,660 to £7,308) plus £450 London Allowance.

Write for application form and further details to Assistant Secretary (Establishments), Brunel University, Uxbridge, Middlesex UB8 3PH, or telephone Uxbridge 37188, extension 30.

Closing date: 14th July 1978.

LONDON

THE UNIVERSITY

THE LONDON SCHOOL OF ECONOMICS

LECTURESHIP IN PLANNING STUDIES

Applications are invited for appointments from 1 October 1978 or as soon as possible thereafter to a lectureship in Urban and Regional Planning Studies. The work is largely with graduate students and is associated with the Departments of Geography, Economics and Government.

Appointment will be on the salary scale for lecturers of £3,660 to £7,308 a year, plus £450 a year London allowance and superannuation benefits. In assessing the starting salary, consideration will be given to qualifications, age and experience.

Applications should be received not later than 24 July 1978 by the Administrative Officer, Room H 614, The London School of Economics, Houghton Street, London WC2A 2AE, from whom application forms and further particulars may be obtained.

NEWCASTLE UPON TYNE

THE UNIVERSITY

DEPARTMENT OF FINE ART

TEMPORARY LECTURER IN SCULPTURE

Applications are invited from men and women for the above post in the Department of Fine Art, which is tenable from 1st October, 1978, for one year.

Salary will be at an appropriate point on the Lecturers' scale £3,660 to £7,308 per annum, according to age, qualifications and experience. Membership of the appropriate University Superannuation scheme will be required.

Further particulars may be obtained from the Registrar, The University, Newcastle upon Tyne, NE1 7RU, with whom applications (3 copies) together with photographs and/or slides of recent work and the names and addresses of three referees, should be lodged not later than 15th July, 1978. Please quote reference THES.

UNIVERSITY OF NEW SOUTH WALES

Sydney, Australia

Faculty of Military Studies

ROYAL MILITARY COLLEGE

Duntroon Canberra

The University has established a Faculty of Military Studies at the Royal Military College, Duntroon, and is co-operating with the Department of Defence in its operation and development within the context of the Australian Government's intention to establish [illegible] tertiary [illegible] Defence Force institution. Appointment will be to the staff of the University, but on establishment of the Defence Force institution the staff of the Faculty will transfer to its employ.

LECTURER

DEPARTMENT OF MECHANICAL ENGINEERING

Applications are invited for the position of Lecturer in Mechanical Engineering. Although not essential, a specialist knowledge of Thermodynamics would be an advantage. The successful applicant will be expected to teach in this and in a number of other subjects in the undergraduate degree course which leads to Bachelor and Honours degrees in Engineering. He will also be expected to participate in the continuing development of the Department's laboratories and to pursue an active research programme.

Salary per annum: $A14,984 range $A19,684. Commencing salary according to qualifications and experience.

Applications close 28 July 1978. Details and conditions of appointment should be obtained from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

UNIVERSITY OF SIERRA LEONE

NJALA UNIVERSITY COLLEGE

Applications are invited for the post of

LECTURER IN THE DEPARTMENT OF TEACHER EDUCATION

Must be qualified in one of the following: Sociology of Education, Guidance and Counselling; Measurement and Evaluation. Must have higher degree in Education and University teaching experience of not less than five years. Preference for those with West African teaching experience. Salary scale, LE3,740 to LE6,270 (£1 sterling equals LE2.0). Family passage; biennial overseas leave; outfit allowance LE120; car allowance LE600 p.a.; superannuation or gratuity; various allowances. Detailed applications (two copies) with curriculum vitae and naming three referees to be sent to Secretary, University of Sierra Leone, PM Bag, Freetown, Sierra Leone by July 16, 1978. Applicants resident in the UK should send one copy to Inter-University Council 90/91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

AUSTRALIAN GRADUATE SCHOOL OF MANAGEMENT

in the

UNIVERSITY OF NEW SOUTH WALES

Sydney, Australia

LECTURER/SENIOR LECTURER APPOINTMENT QUANTITATIVE METHODS

(Ref. 539)

The Australian Graduate School of Management is a specially funded, national postgraduate management school established by the Australian government to enhance the availability, quality and relevance of management education.

Applications are invited from qualified persons interested in making a significant contribution to teaching and research in quantitative methods in a management school. Candidates with interests in any field of quantitative business analysis are invited to apply. Special interests within the school include decision analysis, interactive data analysis and operations and systems analysis.

Salary per annum: Within the range $A20,104-$A23,432 (Senior Lecturer), $A14,984-A19,684 (Lecturer). Commencing salary according to qualifications and experience.

For full information about types of appointment, conditions of employment and method of application, write to: Professor Philip Brown, Director, Australian Graduate School of Management, The University of New South Wales, P.O. Box 1, Kensington, New South Wales, 2033 Australia.

Applications close 31 July, 1978

FLINDERS UNIVERSITY OF SOUTH AUSTRALIA

SCHOOL OF EARTH SCIENCES

RESEARCH FELLOWSHIP

Applications are invited from suitably qualified persons for a Research Fellowship tenable in the School of Earth Sciences. The position is available initially for one year, but application may be made for a further year. Applicants should possess a Ph.D. degree or have had relevant research experience.

The appointment will be made according to qualifications and experience within the salary range, $A12,915 to $A14,785. A grant not exceeding $A500 may be made as a contribution towards the travel costs of the Fellow and his dependants in taking up the Fellowship.

The School of Earth Sciences has research interests in micropaleontology, physical oceanography, hydrology and soil science, geophysics and geology. Applicants can apply to work in any of those areas of interest.

Applications, including full personal details, academic record and publications, a brief outline of research interests and names of at least two referees, should be lodged with The Registrar, The Flinders University of South Australia, Bedford Park, S.A., 5042, by July 14 1978. Preliminary inquiries may be directed to the Chairman of the School, Professor P. Schwerdtfeger.

UNIVERSITY OF STRATHCLYDE

Applications are invited for a

TEMPORARY LECTURESHIP

in the DEPARTMENT OF FIBRE SCIENCE from graduates with suitable qualifications in Textile Science or Textile Technology. Preference will be given to applicants with experience in the design and production of yarns by modern techniques and the finishing of materials. Appointment will be for three years commencing on October 1, 1978, or as soon as possible thereafter.

Salary scale £3,660 to £7,308 with placing according to qualifications and experience. Superannuation benefit.

Application forms and further particulars (quoting 36/78) and enclosing a self-addressed envelope (9in by 4in), may be obtained from the Academic Appointments Officer, University of Strathclyde, Royal College Building, 204 George Street, Glasgow G1 1XW with whom applications should be lodged by July 12, 1978.

Universities continued

UNIVERSITY OF SIERRA LEONE
NJALA UNIVERSITY COLLEGE

Applications are invited for the post of

SENIOR LECTURER/ LECTURER IN THE EDUCATIONAL SERVICES CENTRE

Applicants must have post-graduate degree with specialisation in Educational Technology and working experience in the production and use of adaptive visual aids at all levels of education in Sierra Leone. Appointee will be required to design and teach theories of Audio-Visual perception and application to educational objectives in Sierra Leone. Administrative responsibility for supervision and upgrading the production staff operating in the printing, graphics, photographic and projection sectors. Salary scales : Senior Lecturer Le5,676-Le6,910 p.a. Lecturer Le3,744-Le5,280 p.a. (£1 sterling =Le2.00). The British Government may supplement salaries in range £3,930-£5,316 p.a. (sterling) for married appointee (reviewed annually and normally free of all tax) and provide children's education allowances Le1200 ; car allowance Le800 p.a.; biennial overseas leave ; various allowances. Detailed application (two copies) with curriculum vitae and names of three referees to be sent to Secretary, University of Sierra Leone, PM. Bag, Freetown, Sierra Leone, by 15th July, 1978. Applicants resident in the United Kingdom should send one copy to Inter-University Council, 80-91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

*Subject to the approval of the Government of Sierra Leone.

UNIVERSITY OF SIERRA LEONE
FOURAH BAY COLLEGE

Applications are invited for the following posts in the

DEPARTMENT OF GEOLOGY

PROFESSOR. Appointee is to assume duties as soon as possible. Should have good first degree in Geology plus Ph.D. ; also several years teaching experience. Preferably specialised in Economic or Exploration geology, but candidates with interest and experience in Precambrian/Old areas may be considered.

LECTURER. Should have good honours degree in Geology plus M.Sc. or Ph.D. Preferred field is Palaeontology but candidates should have experience or interest in Sedimentology and Stratigraphy. Appointee expected to develop postgraduate courses in his subject and teach at Preliminary to Honours levels.

Salary Scales : Professor, Le7,296-Le9,420 p.a. ; Lecturer, Le3,744-Le5,280 p.a. (£1 sterling equals Le2.0). At Professor level the British Government may supplement salary by £3,084 p.a. (sterling) for married appointee ; £8,316 p.a. (sterling) for single appointee (reviewed annually and normally free of all tax) and provide children's education allowances and holiday visit passages. At lecturer level the British Government may supplement salaries* in range £3,305-£7,434 p.a. (sterling) for single appointee or £3,930-£5,316 p.a. (sterling) for married appointee (reviewed annually and normally free of all tax) and provide children's education allowances and holiday visit passages. Family passages ; baggage allowance ; superannuation ; medical aid schemes ; regular overseas leave ; duty-free concession.

Detailed application (two copies) with curriculum vitae and naming three referees to be sent to Secretary, University of Sierra Leone, PM. Bag, Freetown, Sierra Leone, by 15th July, 1978. Applicants resident in the United Kingdom should send one copy to Inter-University Council, 80/91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

*Subject to the approval of the Government of Sierra Leone.

UNIVERSITY OF SIERRA LEONE
FOURAH BAY COLLEGE

Applications are invited for the following posts in the

DEPARTMENT OF LIBRARY STUDIES

Applicants should have a post-graduate degree in Library Studies and some teaching experience in Librarianship at university or Third-level institutions. Practical experience working in a Library is also required. Experience in an African or Third World country would also be an advantage.

Preference will be given to applicants with practical and/or teaching experience in General Library administration, Special Library service, Academic Library service, Public Library service, Reference and information work, Bibliography, Cataloguing, History of books and libraries, Selection of Library materials, Archives Management.

Salary scales : Senior Lecturer K7,508 to K8,016 pa ; Lecturer K4,868 to K7,508 pa (£1 sterling equals K1.47).

The British Government may supplement salaries in range £2,220 to £3,234 pa (sterling) for married appointees and £330 to £996 pa (sterling) for single appointees (reviewed annually and normally free of all tax) and provide children's education allowances and holiday visit passages.

Family passages ; baggage allowance ; superannuation ; medical aid schemes ; regular overseas leave ; duty-free concession.

Detailed application (two copies) with curriculum vitae and naming three referees to be sent to Registrar, University of Zambia, PO Box 2379, Lusaka, Zambia, by July 15, 1978.

Applicants resident in the UK should send one copy to Inter-University Council 80/91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

AUSTRALIAN GRADUATE SCHOOL OF MANAGEMENT
In the
UNIVERSITY OF NEW SOUTH WALES
Sydney, Australia

LECTURER/SENIOR LECTURER ACCOUNTING
(Reference 884)

The Australian Graduate School of Management (AGSM) is a specially founded national postgraduate management school established by the Australian Government to enhance the availability, quality and relevance of management education. It offers masters and doctoral programs and short courses for experienced managers.

A tenured or visiting appointment will be offered in accounting, preferably to someone well versed in the application to accounting of ideas from one or more of the following areas : Decision Analysis ; Finance ; Human Behaviour ; Information Economics.

The appointee will be involved in the AGSM's executive courses, will participate in teaching and examining students in the AGSM's degree courses, and will engage in research and consultancy appropriate to the AGSM's academic activities.

Basic salaries are currently : Senior Lecturer within the range $A69,104 to $A23,432 ; Lecturer within the range $A14,964 to $A19,964. Subject to consent of the University Council, members of staff may engage in a moderate amount of paid outside work.

For further information write to : Professor Philip Brown, Director, Australian Graduate School of Management, The University of New South Wales, PO Box 1, Kensington, New South Wales 2033, Australia.

Applicants for appointment at a level other than that of Lecturer or Senior Lecturer are invited to nominate their interest. Applications should be forwarded to the Director by July 14, 1978.

UNIVERSITY OF SYDNEY
LECTURESHIP IN COMMERCIAL & INDUSTRIAL LAW

This position is in the Department of Accountancy. The faculty of Economics and Commerce are the teaching of law to Bachelor of Economics students in the three new courses offered for the Degree. Applicants are expected to have special interest in one or more of the fields of contracts and consumer protection, companies and securities regulation, trade practices or taxation law.

The position may be filled either on a tenured basis or, in the first instance, for a probationary period of three years with the possibility of tenure being given during or shortly after that period, or in certain cases return basis.

Salary Range. $A14,964 to $19,964 p.a.

Applications including curriculum vitae, list of publications and names of three referees by July 14, 1978, to the Registrar University of Sydney, NSW 2006, Australia, from whom further information is available. Information also available from Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

AUSTRALIAN NATIONAL UNIVERSITY
RESEARCH SCHOOL OF PACIFIC STUDIES
DEPARTMENT OF INTERNATIONAL RELATIONS

M.A.I.R. FELLOW

A position is available in the M.A. degree programme in the Department.

The successful applicant will be expected to teach in the M.A. course in International Relations and help to organise it, and to pursue his or her own research in the remaining time available. Experience in teaching International Relations will be regarded as a distinct advantage.

Appointment will be for three years in the first instance with the possibility of renewal, up to a total of five years.

Closing date : 7 July, 1978.

DEPARTMENT OF PREHISTORY

RESEARCH FELLOW/SENIOR RESEARCH FELLOW

Applications are invited for this position, which is a full-time research post. The work of the department is concerned with a wide range of prehistoric studies in Australia, Papua New Guinea and the nearer Melanesian islands, including ecological adaptations during the Pleistocene and Recent Periods in all these areas, ethnographic studies among contemporary Australian hunter-gatherers, and the development of agriculture in Papua New Guinea.

Applicants will be considered in any of these fields but special consideration will be given to applicants wishing to pursue either Pleistocene or ethnographic studies in Australia.

Appointment will be for three years in the first instance with the possibility of reappointment to five years.

Closing date : 25 August, 1978.

SALARIES :

Salary for the post of M.A.I.R. Fellow in the Department of International Relations is in accordance with qualifications and experience within the range $A14,964-19,559 per annum. Salary on appointment of a Senior Research Fellow or Research Fellow is in accordance with qualifications and experience within the ranges : Senior Research Fellow $A20,928-24,964 ; Research Fellow $A14,964-19,559 p.a. Current exchange rates are : $A1=82p ; $US1.13.

Reasonable appointment expenses are paid. Superannuation benefits are available. Assistance with housing is provided for an appointee from outside Canberra.

The University reserves the right not to make an appointment or to make an appointment by invitation at any time.

Prospective applicants should obtain further particulars from the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF.

UNIVERSITY OF SIERRA LEONE
FOURAH BAY COLLEGE

Applications are invited for the following posts in the DEPARTMENT OF CHEMISTRY.

LECTURER IN INORGANIC PHYSICAL CHEMISTRY.

Appointee expected to teach at general and honours degree levels in three or more of the following: chemistry of transition and transition elements; electron deficient compounds; stereochemistry and bonding; physio-chemical and analytical methods and techniques; basic and applied thermodynamics; chemical spectroscopy.

LECTURER IN ORGANIC CHEMISTRY.

Appointee expected to teach at general and honours degree levels in three or more of the following: chemistry of natural products; structural organic chemistry; stereochemistry ; organic reaction mechanisms ; classical organic chemistry.

Salary scales : Le3,744-Le5,280 (£1 sterling=Le2.0). The British Government is unlikely to provide salary supplementation and associated benefits. Family passages ; superannuation or gratuity ; car allowance Le6000 p.a.; outfit allowance Le120 ; biennial overseas leave; various allowances. Detailed applications (2 copies) with curriculum vitae and naming 3 referees to be sent to Secretary, University of Sierra Leone, PM Bag, Freetown, Sierra Leone by 15 July, 1978. Applicants resident in the UK should send one copy to Inter-University Council, 80/91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

UNIVERSITY OF SIERRA LEONE
FOURAH BAY COLLEGE

Applications are invited for the post of

TWO RESIDENT TUTORS IN THE DEPARTMENT OF EXTRA-MURAL STUDIES

Applicants must have a good first degree. The appointees will be based upcountry (Bo, Kenema respectively) and will be required to perform the following duties : (1) to act as Tutor to University Tutorial classes ; (2) to give additional tuition to students of those classes and to such other students as the Board may require ; (3) to assist in the administrative supervision of classes, including the weekly visiting of classes ; (4) to assist in the training of part-time tutors ; (5) to discharge such duties (including attendance and lecturing at Residential schools, seminars and conferences) as the Board may require during the interval between normal class sessions ; (6) to research into the problems of adult education. Salary scale, Le3,740 to Le5,280 pa. Family passages ; superannuation scheme or gratuity ; car allowance Le600 p.a. ; biennial leave ; various allowances. Detailed application (two copies) with curriculum vitae and naming three referees to be sent to Registrar, University College of Botswana, Private Bag 0022, Gaborone, Botswana, by July 21, 1978. Applicants resident in UK should also send one copy to Inter-University Council, 80/91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

UNIVERSITY OF SIERRA LEONE
FOURAH BAY COLLEGE

Applications are invited for the post of

TEMPORARY LECTURER IN ENGLISH LANGUAGE

Applicants should possess good Honours degree in English and postgraduate qualifications in either Linguistics and Language Teaching, Linguistics and the Teaching of English or the Teaching of English as a Second Language in a multi-lingual environment. Appointee expected to teach Pronunciation of English, Usage, Styles and Registers of Contemporary English, general work towards the additional specialisation or experience in some of the following areas : teaching methods, e.g., micro-teaching ; curriculum development ; evaluation ; organization of a University Department ; primary, secondary or teacher-training work in a developing country. Salary scale, P7,344 to P7,836 p.a. (£1 sterling equals P1.35). The British Government may supplement salary by £3,648 p.a. (sterling) for married appointee and £2,148 p.a. (sterling) for single appointee (two copies) with curriculum vitae and naming 3 referees to be sent to Secretary, University of Sierra Leone, PM Bag, Freetown, Sierra Leone by July 15, 1978. Applicants resident in the UK should send one copy to Inter-University Council, 80/91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

UNIVERSITY OF SIERRA LEONE
FOURAH BAY COLLEGE

Applications are invited for the following posts in the DEPARTMENT OF CHEMISTRY.

LECTURER IN INORGANIC PHYSICAL CHEMISTRY.

Appointee expected to teach at general and honours degree levels in three or more of the following: chemistry of transition and transition elements; electron deficient compounds; stereochemistry and bonding; physio-chemical and analytical methods and techniques; basic and applied thermodynamics; chemical spectroscopy.

LECTURER IN ORGANIC CHEMISTRY.

Appointee expected to teach at general and honours degree levels in three or more of the following: chemistry of natural products; structural organic chemistry; stereochemistry ; organic reaction mechanisms ; classical organic chemistry.

Salary scales : Le3,740-Le5,280 (£1 sterling=Le2.0). The British Government is unlikely to provide salary supplementation and associated benefits. Family passages ; superannuation or gratuity ; car allowance Le6000 p.a.; outfit allowance Le120 ; biennial overseas leave; various allowances. Detailed applications (2 copies) with curriculum vitae and naming 3 referees to be sent to Secretary, University of Sierra Leone, PM Bag, Freetown, Sierra Leone by 15 July, 1978. Applicants resident in the UK should send one copy to Inter-University Council, 80/91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

UNIVERSITY COLLEGE BOTSWANA

Applications are invited for the post of

PROFESSOR IN THE DEPARTMENT OF LANGUAGES AND SOCIAL SCIENCE EDUCATION

Applicants should have a Doctorate, experience in Teacher education and educational research, and University teaching experience in several of the following subjects : English History, Geography, Development Studies (Economics and Civics) and Setswana. Preference will be given to a candidate with additional specialisation or experience in some of the following areas : teaching methods, e.g., micro-teaching ; curriculum development ; evaluation ; organization of a University Department ; primary, secondary or teacher-training work in a developing country. Salary scale, P7,344 to P7,836 p.a. (£1 sterling equals P1.35). The British Government may supplement salary by £3,648 p.a. (sterling) for married appointee and £2,148 p.a. (sterling) for single appointee (two copies) with curriculum vitae and naming 3 referees to be sent to Secretary, University of Sierra Leone, PM Bag, Freetown, Sierra Leone by July 15, 1978. Applicants resident in the UK should send one copy to Inter-University Council, 80/91 Tottenham Court Road, London W1P 0DT. Further details may be obtained from either address.

BIRMINGHAM
THE UNIVERSITY
SHAKESPEARE INSTITUTE

Applications are invited for a

TEMPORARY FELLOWSHIP
LECTURESHIP

in the Shakespeare Institute for one year from 1 October, 1978, or as soon as possible thereafter. The successful applicant will be expected to assist in the administration of research and the conduct of courses for postgraduate students, and to undertake duties in literature and history relevant to Shakespeare's times and to seventeenth-century literature generally.

Salary on lower part of Scale 1, Code No. 1B, with superannuation.

Further particulars from Assistant Registrar, Arts, University of Birmingham, P.O. Box 363, Birmingham, B15 2TT, to whom applications (two copies), together with names of three referees, should be sent by 10 July, 1978.

COVENTRY
THE LANCASTER POLYTECHNIC
SCHOOL OF COMPUTER SCIENCE
SHORT-TERM STUDENTSHIP

Interactive systems for answering examination questions on-line, with particular emphasis in connection with Chemistry, Mathematics and Physics.

Applications are invited from graduates or those expecting to graduate with first or upper second class honours degrees in Physics, Mathematics, Computer Science or Chemistry. Preference will be given to candidates with a substantial degree of interest in computer-based learning. Applicants should have a thorough knowledge of computer programming, preferably with interactive experience. The project will last three years and the successful candidate will be expected to register for a higher degree.

Applications are strongly advised to contact Dr. N. Fiddes, Department of Computer Science, Lancaster Polytechnic, Coventry, CV1 5FB. Telephone 71311, before 20th June, 1978.

For application form please apply by letter or telephone, stamped addressed foolscap envelope to the Personnel Officer, Lancaster Polytechnic, Coventry, CV1 5FB, returnable by 30th June, 1978.

BRADFORD
THE UNIVERSITY
S.R.C. RESEARCH STUDENTSHIPS IN ARCHAEOLOGICAL SCIENCES

Graduates with a first or upper second class honours degree in Archaeology or Science are invited to apply for Research Studentships in Archaeological Science. Specific topics to be studied are brick and tile of the Roman to late medieval period and wine production in the Medieval period.

Those interested in these topics or in Neolithic spectrographic analysis should write for further details to the Postgraduate Admissions Tutor, School of Physics, University of Bradford, Bradford, West Yorkshire, BD7 1DP, quoting Ref. RS/AS 3/78.

MANCHESTER
THE POLYTECHNIC
INSTITUTE OF ADVANCED
INTERDISCIPLINARY RESEARCH DEGREES UNIT
RESEARCH STUDENTSHIP

An opportunity to undertake research for a higher degree and gain industrial experience.

The Polytechnic has established five research programmes in combination with industry for training in interdisciplinary research methods. All five research programmes are a blend of technological and management / business study skills, and will involve substantial periods of study in industry. Two of the programmes are to be based in London, and three in Manchester.

The Manchester posts would be suitable for graduates with interests in industrial design, engineering and metallurgy or production engineering. The London projects would be suitable for graduates in chemistry, physics, and business studies, with a preference especially although for an five projects graduates of any discipline will be considered.

Applicants should possess at least an honours degree or C.N.A.A. equivalent. A postgraduate qualification would be acceptable to the Scientific Research Council for a studentship, and should be interested in pursuing a career in research or development work in industry, commerce or the public sector.

Salary will be £2,740 p.a. and will be paid for each of these posts.

For further details and application forms please return to by 31 July, 1978, please send a brief curriculum vitae and the names of two referees. Applications will be considered immediately for any of the above vacancies.

SHEFFIELD
THE UNIVERSITY
DEPARTMENT OF ZOOLOGY
RESEARCH STUDENTSHIP

Research studentship available for a study into the effect of copper on settlement of marine invertebrate larvae. The project will be based in Sheffield, but the successful candidate will be required to spend considerable periods of time in the laboratories of the M.B.A. in Plymouth.

Applicants (men or women) should have a first or upper second class honours degree in Zoology or equivalent. Experience in some of the following areas would be an advantage : physiology of invertebrates, marine biology, ecology, biochemistry or an interest in pollution.

Applications should be sent by 1 August, 1978, to Dr. R. Bayne, Department of Zoology, The University, Sheffield S10 2TN, from whom further particulars may be obtained.

WARWICK
THE UNIVERSITY
RESEARCH FELLOWSHIP IN VIROLOGY

Applications are invited for a POSTDOCTORAL RESEARCH FELLOWSHIP in virus research. The successful applicant will work in the Biochemistry of Viruses Group in the Department of Biological Sciences. The successful applicant will work in a small group applying the biochemistry of viruses to cancer research with particular reference to their ability to transform cells. Experience of nucleic acid techniques, tissue culture and the use of restriction enzymes and viruses and oncogenic viruses would be an advantage.

Salary : Salary will be between points 1 and 6 on the Research Fellow Scale (£3,660 to £4,854) or on the Senior Research Fellow Scale (£5,508 to £6,178) according to qualifications and experience. Funded by the Cancer Research Campaign, the appointment is for three years in the first instance, renewable on an annual basis until September 30th, 1981.

Further details and application forms may be obtained from the Personnel Officer, University House, The University, Coventry CV4 7AL, quoting Ref. 4/H/78. Closing date for receipt of application is July 7, 1978.

MIDLOTHIAN
HERIOT-WATT UNIVERSITY
DEPARTMENT OF MECHANICAL ENGINEERING
SCB CASE SCHOLARSHIP STUDENTSHIP

Applications are invited for a RESEARCH ASSISTANTSHIP in work on fundamental problems associated with the use of convex tire bolting and surface activity. The applicant should have a keen interest in obtain a good honours degree or equivalent in a relevant science. The award is sponsored by the Science Research Council and the Natural Rubber Producers' Research Association and it is hoped that the successful applicant will be able to register for a Ph.D. degree.

Applications, stating age, qualifications and experience, should be sent to Professor J. Dunn, Department of Mechanical Engineering, Heriot-Watt University, Chambers Street, Edinburgh, EH1 1HX.

CARDIFF
UNIVERSITY COLLEGE
RESEARCH FELLOWSHIP IN ECONOMICS

Applications are invited for the above fellowship which is tenable for three years from 1st October, 1978. The successful candidate will be expected to undertake research in the economics of the steel industry. Salary will be at a scale depending on age and experience on the lecturer/senior lecturer scale.

Further particulars may be obtained from Professor R. Brown, Department of Economics, University College, P.O. Box 78, Cardiff CF1 1XL, to whom applications, with the names and addresses of two referees should be returned by 7th July, 1978.

MANCHESTER
THE UNIVERSITY
DEPARTMENT OF MEDICAL MICROBIOLOGY
SRC/CAMR RESEARCH STUDENTSHIP

Applications are invited for the above studentship, tenable from October 1st, 1978, for studies on the genetic control of structure and assembly of the T4 bacteriophage tail. Applicants should have a first or upper second class honours degree in biochemistry or microbiology or equivalent qualifications and experience in some of the following areas : genetics, virology, biochemistry or an interest in electron microscopy.

Applications should be sent to Dr. J. King, Department of Medical Microbiology, The University, Manchester, M13 9PT.

Fellowships and Studentships continued

Energy Research
Fellowships

The Energy Panel of the Social Science Research Council has established a Scheme by which Junior Fellows can be attached to researchers who have already made important contributions to energy research in the social science field. The Fellows would be expected to undertake specific projects related to the particular interests of the supervising researcher. The level of support is equivalent to that of the supervising researcher.

The level of support is equivalent to that of Range 1A of salary scales for research and analogous staff i.e. £3,660 to £6,178, and will include some allowance for travel and subsistence and related support costs. The duration of each Fellowship would be two years. There are three Fellowships available.

Senior academics engaged on relevant research are invited to make a bid for the holder of one of these posts to be attached to their departments.

Further particulars can be obtained from Ms Christina Hadjimatheou, Secretary to the Energy Panel, SSRC, 1 Temple Avenue, London EC4Y 0BD.

THE UNIVERSITY OF LANCASTER
Centre for the Development of Management Teachers and Trainers

Research Fellow and Research Assistant

Applications are invited for the above posts to work on the Centre's research programme, which includes investigation in the following areas :-
The nature of managerial activity and skills.
The adult learning process.
Interpersonal behaviour in the teaching process.
The roles of the investment in management development.
The evaluation of the Centre's total programme of activities.

The Research Fellow will be required to take responsibility for research projects with consultancy and training staff. The Research Assistant will work under the supervision of a project leader.

Successful applicants will be likely to have qualifications in a behavioural science or management related subject, and to be able to demonstrate research skills. Experience in management or management teaching or training would also be an advantage.

Both appointments are for two years and will be on salary scale Research Range 1B, £3,109-£4,501.

Further information may be obtained (quoting reference L60/A) from the Establishment Officer, University of Lancaster, Lancaster LA1 4YW, to whom applications (3 copies) naming 3 referees should be sent not later than 15 July, 1978, stating clearly which post is required.

OXFORD—KEBLE COLLEGE
Keble College/Rolls-Royce Research Fellowship

The College proposes to appoint a Research Fellow in Engineering Science for three years from October 1978, or as soon as possible thereafter, in any field of interest to Rolls-Royce. Preference will be given to subjects within the scope of the Oxford University Department of Engineering Science. Candidates should already hold a doctorate or have equivalent research experience and the election will be based on the promise of research to date. Candidature for the Fellowship is open to graduates of any university and of either sex. The annual stipend will be £3,120, in addition a single Fellow will be provided with meals and living accommodation in College, and a married Fellow will be provided with some meals and a marriage allowance. Further details may be obtained from The Warden, Keble College, Oxford. Applications should be submitted not later than 17th July, 1978.

ULSTER COLLEGE
THE NORTHERN IRELAND POLYTECHNIC

Faculty of Arts

LECTURER II OR SENIOR LECTURER POLITICS

The post is in the School of Philosophy, Politics and History. Persons with qualifications in any area of the study of politics may apply for the post but special consideration will be given to candidates with competence in teaching political and social theory and methodology.

Management and Continuing Education

LECTURER II/SENIOR LECTURER IN MANAGEMENT

Applications are invited for a suitably qualified and experienced person to contribute to the teaching of a combination of topics in the Business Policy, Operations/Production Management areas.

Faculty of Science

LECTURER II OR SENIOR LECTURER COMPUTER SCIENCE

(Temporary one year appointment)

Applicants should have a good Honours Degree and/or a Professional Qualification. The duties of the post include the teaching of courses in the School of Computer Science. A background in data processing and systems analysis, together with previous teaching experience, would be considered an advantage.

Faculty of Technology

PRINCIPAL LECTURER IN CONSTRUCTION TECHNOLOGY

Applicants should be well qualified and experienced graduates with a higher degree in an appropriate discipline. Applicants should have teaching experience at degree level and a proven record of research.

PRINCIPAL LECTURER MECHANICAL/INDUSTRIAL ENGINEERING

Applications are invited for the post of Principal Lecturer within the School of Mechanical and Industrial Engineering.

Amongst other duties applicants will be expected to play a major role in teaching and curriculum development at degree and post graduate level. They will be expected to have expertise in at least one of the subjects forming the core of the school's contribution to the sandwich and part-time degree courses in Engineering. These are—engineering science, materials science, systems and control, manufacture, design.

The successful candidate will have relevant industrial experience and will have demonstrated proficiency in teaching, curriculum development, laboratory development, research and consultancy.

LECTURER II/SENIOR LECTURER SHIP TECHNOLOGY

Candidates should be graduates with relevant professional qualifications and preferably have an interest in marine structural design.

LECTURER I/II NAVIGATION

To teach nautical science subjects at various levels in the School of Maritime Studies.

Salary Scales : Principal Lecturer £7,047-£7,818/£8,844
Senior Lecturer £6,051-£7,272/£7,572
Lecturer II £4,101-£6,858
Lecturer I £3,105-£5,334

The Polytechnic is a direct grant institution with an independent Board of Governors. It opened in 1971 and now has a student population of some 7,100. It has extensive new purpose-built accommodation including 780 residential places on the 114-acre campus overlooking the sea at Jordanstown, a pleasant and quiet residential area. There is a scheme of assistance with removal.

Further particulars and application forms which must be returned by July 10, may be obtained by telephoning Whiteabbey (0231) 68131 ext. 2243 or by writing to :—

The Establishment Officer,
Ulster College,
The Northern Ireland Polytechnic,
Shore Road,
NEWTOWNABBEY,
Co Antrim BT37 0QB.

Research Posts

Applications are invited for the following Research Posts :

Faculty of Art and Design
Greengate House, Plaistow, E13

Research Assistant

to assist in the design and administration of tests of picture perception and production to students from both the UK and overseas countries and to assist in the statistical evaluation of the results of these experiments and the preparation of the results for publication. *(Ref. S/AO 321A)*

Faculty of Business—Barking Precinct
Department of Applied Economic Studies

Research Fellow

to undertake research into the causes of public sector growth and its effects on the economy. *(Ref. S/AO 321B)*

Faculty of Environmental Studies
Waltham Forest Precinct
Department of Architecture

Research Assistant

to assist in the development of a solar heating system, a controlled ventilation system and energy saving devices for a low energy house and to carry out energy performance predictions on an existing design providing help with any subsequent modification *(Ref. S/AO 321C)*

Faculty of Engineering—Barking Precinct
Department of Production Engineering

Research Assistant

to study the fatigue of Polymers. Areas of investigation will include the optimisation of post-moulding and manufacturing techniques for polymers ; the simulation in a fatigue specimen of the in-service stress conditions of an actual polymeric component and the derivation of further fatigue data. *(Ref. S/AO 321D)*

Anglian Regional Management Centre

Three Research Assistants

are required to work on the following projects :
1. General developments in incentive bargaining
2. The effectiveness of performance appraisal
3. Management and industrial relations case writing

Applicants should have a good honours degree or a higher degree in a relevant discipline and have some knowledge or experience of research. The successful appointee will work under the direction of the Head of the Research and Consultancy Unit, which is based at the Centre's N.E. London location, currently at Chadwell Heath, but moving to Stratford in 1979. *(Ref. S/AO 321E)*

All the above Research posts are available for appointment as soon as possible on short-term two-year contracts.

Salary Scales :
Research Assistant
£3,378-£3,618 (under review)
(Plus applicable London Allowance)
Research Fellow
£4,101-£4,383
(Plus applicable London Allowance)

Further details and application form from :—
The Senior Assistant Personnel Officer (2),
North East London Polytechnic,
Forest Road, London E17 4JB.
Telephone : 01-527 2272 (Extension 29).
Closing date : 3rd July, 1978.

NELP North East London Polytechnic

Leeds
Polytechnic

Applications are invited for the following posts

School of Constructional Studies

LECTURER II, ENVIRONMENTAL ENGINEERING
A first degree in an appropriate discipline and a real interest in developing Building Services areas of technology will be looked for.

School of Accounting and Applied Economics
LECTURER II, ACCOUNTING (Two Posts)
A professional qualification and particular interest in Financial Management or Management Accounting is required.

School of Education
LECTURER II, EDUCATIONAL PSYCHOLOGY (Temporary Post)
A first degree in psychology and teaching experience essential together with eligibility for associate membership of the British Psychological Society.

School of Electrical Engineering
LECTURER II, ELECTRICAL AND/OR ELECTRONIC ENGINEERING (Two Posts)
Able to offer General Electrical Engineering and one or more of the following : Computer Engineering, Digital Electronics, Communication Engineering, Television Engineering.

School of Humanities and Contemporary Studies
LECTURER II, BEHAVIOURAL SCIENCE
Qualifications in psychology and sociology together with research experience.

School of Mathematics and Computing
LECTURER II, APPLIED STATISTICS
A qualification in statistics and, preferably, practical experience.

Salary Scales. Lecturer II, £4,101 to £6,558. All these posts carry possibility of progression to Senior Lecturer (£6,051 to £7,572).

Details from The Services Officer, Leeds Polytechnic, Calverley Street, Leeds LS1 3HE. Tel. 0532 462823, please enclose s.a.e.

Closing date Electrical Engineering July 3, 1978. And all others July 7, 1978.

Miscellaneous

LEICESTER INTERNATIONAL CO-OPERATIVES MANAGEMENT CENTRE
LECTURER IN CO-OPERATIVE MANAGEMENT AND ECONOMICS

The Centre, located at the Co-operative College, Loughborough, provides short and medium-term training and consultancy for co-operative enterprises and co-operative movements and for co-operative sector of less developed countries.

Applicants for the above post should have appropriate academic qualifications and experience and be citizens of the United Kingdom or the Republic of Ireland.

Salary £3,744-£5,280 p.a. (under review) plus £600 p.a. London Allowance (particulars from the Principal, International Co-operative Training Centre, Loughborough, Leics. LE11 0QJ).

NORWICH
UNIVERSITY OF EAST ANGLIA
SCHOOL OF ENVIRONMENTAL SCIENCES

Applications are invited for two posts of JUNIOR RESEARCH FELLOW in Environmental Sciences. Appointees will be required to work on a project, lasting two years, on Arctic coastal processes in the Mackenzie Delta, Canada. Applicants should have a first or upper second class honours degree or be graduates of equivalent standard in a relevant discipline. For one of the posts a degree in geography is given preference while for the other a degree in physics, mathematics or engineering is required. Salary will be within the range £3,930 to £4,851 per annum. Further details may be obtained from Professor A. S. Goudie, School of Environmental Sciences, University of East Anglia, Norwich NR4 7TJ, to whom applications should be sent by 7th July, 1978.

Polytechnics continued

SUNDERLAND
THE POLYTECHNIC
FACULTY OF HUMANITIES
DEPARTMENT OF SOCIAL SCIENCES

LECTURER II IN SOCIOLOGY

Applicants should have a first degree, a strong interest in research and teaching and be committed to the application of sociology to the solution of social problems. Some experience in the sociology of work or industry and modern sociological theory.

Salary Scale : Lecturer II, £4,101 to £6,084 (rising to £6,558).

Further particulars and application forms may be obtained from the Personnel Officer, Sunderland Polytechnic, Langham Tower, Ryhope Road, Sunderland SR2 7EE, and should be returned as soon as possible.

LONDON
MIDDLESEX POLYTECHNIC
SENIOR LECTURER IN PUBLIC ADMINISTRATION

Applications are invited for the above post, tenable from 1 September, 1978, or as soon as possible thereafter. Candidates should have a qualification in public administration and experience in some aspect of public administration. Experience in local government would be an advantage. Candidates should have a good honours degree or equivalent qualification and preferably have some experience in some aspect of public administration. Salary scale £5,508 to £6,858 per annum.

Further particulars and application form may be obtained from the Personnel Officer, Middlesex Polytechnic, Queensway, Enfield, Middlesex EN3 4SF. Telephone 01-366 1212 ext. 2222 (24 hour answering service). Closing date for receipt of applications 7 July, 1978.

LONDON
POLYTECHNIC OF THE SOUTH BANK
Senior Lecturer/Lecturer II in Computing

The Polytechnic proposes to appoint a Senior Lecturer/Lecturer II in Computing to the Department of Engineering Systems. The successful candidate will be required to contribute to undergraduate courses in Computing for local authority engineers.

Candidates should have a good honours degree in engineering or science and experience in some aspect of computing. Experience in computer applications to engineering would be an advantage.

Salary scales : Senior Lecturer £5,508 to £6,858 per annum. Lecturer II £4,101 to £6,084 per annum.

Further particulars and application forms may be obtained from the Personnel Officer, Polytechnic of the South Bank, Borough Road, London SE1 0AA. Telephone 01-928 8989 ext. 2222 (24 hour answering service). Closing date for receipt of applications 7 July, 1978.

Brighton Polytechnic

Faculty of Natural and Life Sciences

DEPARTMENT OF PHARMACY

READER

£7,047–£8,844

Candidates should have good academic qualifications in Pharmacy or related disciplines together with a higher degree and substantial academic, industrial or hospital experience. The person appointed will take major responsibility for research development and co-ordination.

For further details and application forms please apply to the Personnel Officer, Brighton Polytechnic, Mouisecoomb, Brighton BN2 4GJ. Telephone (0273) 693655, extension 2537.

Polytechnics continued

North Staffordshire Polytechnic
Department of Art History and Complementary Studies

PRINCIPAL LECTURER
3 SENIOR LECTURERS/LECTURER II
(4 posts)

The Department wishes to make four appointments within the five subject areas listed below:—

20th C. Art, Architecture and Design.
18th C. Art, Architecture and Design.
The History of Graphic Design.
The History of Ceramics and Glass.
The History of Film.

The successful candidates must have a good honours degree in Art History, and teaching experience at degree level. In the case of senior appointments, research experience and administrative ability are expected.

Those appointed will be required to teach on the C.N.A.A. course:

B.A.(Hons.) HISTORY OF DESIGN AND THE VISUAL ARTS

which offers specialist options in the 2nd and 3rd years in the fields of:—

The History of Ceramics and Glass.
The Evolution of Graphic Design
Film—The development of the moving image.
Architecture of Industrial Society.
The History of Painting and Sculpture.

Those appointed will also be expected to contribute to the teaching on the degree courses leading to:—
B.A. (Hons.) MULTI-DISCIPLINARY DESIGN.
B.A. (Hons.) FINE ART.

Applications by letter, indicating the subject area and the appropriate grade of post for which the candidate wishes to be considered, with the names of two referees, should be returned by June 30, 1978, to:—
The Deputy Director (Staffing),
North Staffordshire Polytechnic,
College Road,
Stoke-on-Trent, Staffordshire.
ST4 2DE.

Interviews will be held on July 11 and 12, 1978.

Further information may be obtained from the Head of the Department—Mrs. Flavia Petrie—Tel. (0782) 45531.

Salary Scales:
Principal Lecturer: £7,047 to £7,818 (Bar) £8,844.
Senior Lecturer: £6,051 to £7,065 (Bar) £7,572.
Lecturer II £4,101 to £6,558.

PRINCIPAL LECTURER IN PHOTOGRAPHY

A photographer of distinction is required to take charge of the Creative Photography course which is conducted jointly with the Derby Lonsdale College of Higher Education. The course leads to a Polytechnic Diploma which carries exemption from the Professional Qualifying Examination of the Institute of Incorporated Photographers.

PRINCIPAL LECTURER IN INTERIOR DESIGN

Applications are invited from suitably qualified candidates to undertake the duties of Course Leader of the BA(Hons) Interior Design Course. Candidates will be expected to hold appropriate academic qualifications and to have had some experience of teaching at a senior level on a degree course in design.

Salary, £7,047 to £7,818 (bar) to £8,844.
Further details and form of application from The Assistant Director and Chief Administrative Officer, Trent Polytechnic, Burton Street, Nottingham NG1 4BU. Closing date July 3, 1978.

TRENT POLYTECHNIC NOTTINGHAM

THE POLYTECHNIC OF WALES
POLITECHNIG CYMRU

Applications are invited for the post of:

ASSISTANT ACADEMIC REGISTRAR

Salary: £4,789.56-£5,512.56 inclusive of supplements.

Candidates for this senior officer post should have some appropriate experience in an institution of higher/further education and/or in the field of public (education) administration. Teaching experience in higher/further education will be an advantage.

N.J.C. Conditions of Service apply.

Application forms and further particulars, returnable by 10th July, 1978, are obtainable from:
The Personnel Officer,
The Polytechnic of Wales,
Llantwit Road,
PONTYPRIDD,
Mid-Glamorgan,
CF37 1DL.
Telephone No. Pontypridd 405133.

Faculty of Humanities—Barking Precinct
School of Education and Humanities
Applications are invited for the following posts:

Principal Lecturer

responsible for language teaching within the Polytechnic including EFL and Linguistics. He/she will be concerned with the development and co-ordination of all second language teaching. (Ref. 5/AO/??A)

Lecturer II

in Education (Cognitive Development and Language) to work mainly on initial and in-service teacher training courses. (Ref. 5/AO/??B)

Salary Scales: Principal Lecturer, £7,047-£8,844 per annum. Lecturer II, £4,101-£6,558 per annum (plus applicable London Allowance).

Further details and application form from:
The Senior Academic Personnel Officer (2),
North West London Polytechnic,
Forest Road, London E17 4JB
Telephone: 01-527 2272, ext. 20.

Closing date 7th July, 1978.

NELP North East London Polytechnic

KINGSTON
POLYTECHNIC
SCHOOL OF ARTS AND LANGUAGES
RESEARCH ASSISTANT in HISTORY

This post is for research in the field of British foreign policy during the late 1930s and the Second World War, with particular reference to British attitudes towards the League of Nations.

Applicants should hold, or expect to gain, a good Honours degree in History. The person appointed will be expected to register for a higher degree with the CNAA, and to assist with the teaching within the School of Arts and Languages.

Salary range £3,675-£3,955 inc. Application forms (to be returned as soon as possible) and further details from the Academic Registry, Dept. AO, Kingston Polytechnic, Penrhyn Road, Kingston upon Thames, KT1 2EE. 01-549 1366.

LEICESTER
THE POLYTECHNIC
SCHOOL OF SPEECH PATHOLOGY
requires a
PRINCIPAL LECTURER IN LINGUISTIC SCIENCES
(Post no. ???)

[illegible]

LIVERPOOL
THE POLYTECHNIC
DEPARTMENT OF CHEMISTRY/BIOCHEMISTRY
LECTURER GRADE II IN BIOCHEMISTRY

Applications are invited from candidates holding a first and a higher degree in Biochemistry, Physiology and related areas.

The successful candidate will be expected to teach Biochemistry and Physiology to Honours level in the Applied Biochemistry degree, to provide specialist service work within the Faculty of Science, and to contribute to the Department's research programme. Relevant teaching experience, whilst not essential, would be an advantage.

Salary scale: £4,101 to £6,558 per annum.

Application forms and further particulars are available from the Personnel Office, Liverpool Polytechnic, Richmond House, 1 Rumford Place, Liverpool L3 9RH. Tel. 051-227 5581, Ext. 45.

Please quote reference LP/182.

Closing date is 7th July, 1978.

NORTH LONDON
THE POLYTECHNIC
DEPARTMENT OF LANGUAGE AND LITERATURE

Part-time LECTURER required to assist in teaching of SHAKESPEARE and RENAISSANCE DRAMA for one year in B.A. English Honours Course. Research and teaching interests in the area looked for.

£6.98 an hour.

Curriculum vitae to the Head of the Department of Language and Literature, The Polytechnic of North London, Prince of Wales Road, NW5 3LB, within 14 days of the appearance of this advertisement.

LONDON
POLYTECHNIC OF CENTRAL LONDON
SCHOOL OF SOCIAL SCIENCES AND BUSINESS STUDIES

Temporary part-time LECTURER required to teach MODERN EUROPEAN HISTORY.

Details and application form from the Establishment Officer, The Polytechnic of Central London, 309 Regent Street, London W1R 8AL. Tel. 01-580 2020, Ext. 212. Forms to be returned 10 days after insertion of this advertisement.

NORTH LONDON
THE POLYTECHNIC
DEPARTMENT OF APPLIED SOCIAL STUDIES
RESEARCH FELLOW

Applications are invited for a two-year fellowship to assist in running an MRC funded research project concerned with the social and psychological implications of very severe deafness in adults. He or she will share responsibility for research design, fieldwork, and write-up. Involvement in a project with the elderly deaf, supported by the Nuffield Foundation, may be possible from time to time.

The person appointed must be a graduate or equivalent. Research experience or working with handicap is highly desirable. Qualifications or experience in one of the following may be an advantage: clinical psychology, social psychiatry, psycho-acoustics or a well developed research interest in communication strategies.

Salary Scale: £3,717 to £4,203 subject to formal approval plus £402 London allowance.

Application forms and further details from the Secretary, Department of Applied Social Studies, Polytechnic of North London, Highbury Grove, London N5 2AD. Informal inquiries to Alan Thomas or Kathy Gilhome Herbst, 01-607 2789, extension 8008.

Closing date 5th June 1978.

NEWCASTLE UPON TYNE
THE POLYTECHNIC
DEPARTMENT OF ACCOUNTANCY
SENIOR LECTURER

Applicants should have an intellectual interest in the development of accountancy studies, and a commitment to research will be a distinct advantage.

The successful applicant will be expected to contribute to the development of accountancy studies particularly in degree courses and will be required to undertake some subject and/or leadership responsibilities.

Appropriate qualifications for this post are a good degree in a relevant discipline and a recognised accountancy professional qualification.

FACULTY OF EDUCATION & LIBRARIANSHIP
DIVISION OF EDUCATION STUDIES
SENIOR LECTURER OR LECTURER II IN MENTAL HANDICAP

Applications are invited from trained and well-qualified graduate teachers for the post of Senior Lecturer or Lecturer II in Mental Handicap, the Grade of post depending on the experience and qualification of the person appointed.

Candidates must have at least two years of either mental handicap teaching or speech therapy experience and be able to adapt to teach learning situations. The successful candidate will be able to integrate into a professionally concerned team, responsible for preservice and in-service courses for teachers and take advantage of major possibilities for research. For the committed person, this post offers exciting post-Warnock opportunities in teacher education.

DEPARTMENT OF ADMINISTRATIVE AND MANAGEMENT STUDIES
DIVISION OF MARKETING AND DISTRIBUTION
SENIOR LECTURER OR LECTURER II IN MARKETING

Applications are invited for the above post, which carries a major advertising emphasis, but also offers opportunities in other fields of Marketing. The successful candidate will be expected to contribute to a range of courses, which include a postgraduate Diploma in Marketing (CNAA), a Marketing option of the B.A. (Business Studies), the Diploma in Management Studies, and a number of Higher National Diploma options.

Burnham Further Education: Senior Lecturer: £6,051 to £7,572 per annum; Lecturer II, £4,101 to £6,558 per annum.

For further particulars and an application form, returnable by Thursday, 6th July, 1978, please send a stamped addressed foolscap envelope to the Staffing Officer, Newcastle upon Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle upon Tyne, NE1 8ST.

SHEFFIELD
SHEFFIELD CITY POLYTECHNIC
DEPARTMENT OF MECHANICAL AND PRODUCTION ENGINEERING
SENIOR LECTURER OR LECTURER II IN PRODUCTION MANAGEMENT

Salary Scale: Senior Lecturer: £5,525-£6,417 (bar)—£6,907.

Lecturer II: £3,744-£5,985 (1978 Pay Award Pending).

Required for September, 1978, to assist with teaching Production Management topics (possibly including OR and Industrial Relations) in Engineering courses up to degree level.

Applicants should hold a degree (or preferably a higher degree for the S.L. post) and have experience in the production function in manufacturing industry or in appropriate research.

Requests for an application form, in writing only please, to the Recruitment Section of the Personnel Department, Sheffield City Polytechnic (Dept. THES), Halfords House, Fitzalan Square, Sheffield S1 2BB. Completed forms should be returned by July 6, 1978.

NEWCASTLE UPON TYNE
THE POLYTECHNIC
DEPARTMENT OF MATHEMATICS, STATISTICS AND COMPUTING
LECTURER II IN COMPUTING

Applications are invited for the above post. The person appointed will join a group of staff concerned with the teaching of Computing throughout the Polytechnic.

Applicants should be well qualified in computing and have teaching, research and/or industrial experience. Candidates will be expected to have a special interest in some area of computing and to be prepared to undertake or supervise research.

Burnham F.E. Lecturer II: £4,101 to £6,558 per annum.

For further particulars and an application form, returnable by 13th July, 1978, please send a stamped addressed foolscap envelope to the Staffing Officer, Newcastle upon Tyne Polytechnic, Ellison Building, Ellison Place, Newcastle upon Tyne, NE1 8ST.

Situations Wanted

Ph.D. PSYCHOLOGIST [illegible] V, T.H.E.S., [illegible]

Personal

POSTALOANS UNSECURED £50 to £1,500 RICHMOND [illegible] LTD 4 The Green, Richmond [illegible] 01-940 [illegible]

ADVICE ON NATURE [illegible] Pauline [illegible] Foundation, [illegible] Orpington BR5 4ET.

Courses

City of Birmingham Polytechnic
School of History of Art and Complementary Studies

POSTGRADUATE DIPLOMA IN HISTORY OF ART & DESIGN (CNAA)

This one-year full-time course is open to graduates [who] wish to specialise in art history or the history of design. [A] proposed extension to the course leading to the degree [of] MA is at present before the CNAA.

Further particulars and application forms from: **Admissions Section (HA) City of Birmingham Polytechnic, Corporation Street, Birmingham B4 7DX. Tel. 021-[?]6851.**

Research

Advertisement for Research Director/Secretary

Research Director/Secretary required by the Study Commission on the Family, an independent body set up under the Chairmanship of [?] Campbell Adamson and with financial support from The [?] Trust to conduct a full scale review of research into various aspects of the family and to undertake research of its own [?] preparing for a National Conference on the Family in [?].

[illegible]

Application for the post of Research Director/Secretary, [together] with considerable research experience in this field should be [sent] to Sir Campbell Adamson at 21 Moorfields, London EC2 [?] "Personal".

5th June, 1978

Administration

Polytechnic of Wales
Politechnig Cymru
Students' Union
Undeb Myfyrwyr

PERMANENT SECRETARY

Responsible for supervising senior committees, research and development of Union projects, management of [?] staff and trading ventures, the Union's accounts and finances, and the implementation of financial controls. Degree or similar professional qualification preferred with proven record of staff management and experience of knowledge of Students' Unions together with sympathy for the general aims.

Salary on Local Authority Scale AP 4/5 £3,551 to £4,623 (Under Review), generous holidays and superannuation scheme. Application, together with full Curriculum Vitae to the Permanent Secretary, The Polytechnic of Wales Students' Union, Forest Grove, Treforest, Mid-Glamorgan, CF37 3AG (Pontypridd 402173), from whom further details are obtainable.

Applications must contain the names and addresses of three persons prepared to act as referees and should arrive no later than Friday, 30th June, 1978.

CARDIFF
UNIVERSITY COLLEGE

Applications are invited for the post of ADMINISTRATIVE ASSISTANT in the REGISTRY.

Salary range £3,369 to £5,282 (Grade II) in the first instance.

Applications (two copies), together with the names and addresses of two referees, should be forwarded to the Vice-Principal (Administration) and Registrar, University College, P.O. Box 78, Cardiff CF1 1XL, from whom further particulars may be obtained. Closing date 7th July 1978. Please quote reference 1[?].

SHEFFIELD
THE UNIVERSITY
REGISTRAR'S DEPARTMENT

Applications are invited from men and women graduates for a post of ADMINISTRATIVE ASSISTANT in the office of the Registrar and Secretary from 1 October, 1978.

Initial salary in range £3,[?] to £4,[?] a year on Administrative Staff Grade 1A [?] to £6,[?] a year.

Particulars from the Registrar and Secretary, The University, Sheffield S10 2TN, to whom applications [?] should be sent by 14 [July] 1978.

Quote Ref.: R146/D[?]

Administration continued

Council for National Academic Awards

EXECUTIVE OFFICER (MEMBERSHIP)

The Council has a vacancy for an Executive Officer in the Membership Section of the Council.

Experience of administration in an educational or professional environment would be an advantage.

Offices conveniently situated near King's Cross and St. Pancras stations; benefits include season ticket loans, luncheon vouchers, 24 days' annual leave.

The salary on appointment will be within the scale £3,057-£4,230 (currently under review).

Further particulars of the post may be obtained from:
K. R. Booth, Assistant Secretary,
Council for National Academic Awards,
344/354 Gray's Inn Road, London WC1X 8BP,
to whom applications giving details of qualifications and experience and mentioning the names of two referees should be submitted by 7 July, 1978.

Students' Union of the Colleges of Hull
SUCH

Senior Administrative Officer
Grade PO1 (1 6) £5208 - £6270 under review

SUCH is a combined union of approximately 12,000 full and part time students from the two Colleges of Higher and Further Education in Hull.

The person appointed will be responsible for developing the administration and services of this recently established union which has bases on three main sites in the city. The post calls for wide experience, preferably in a students' union of management of staff and finance and the commercial operation of shops and bars.

The Union wishes to appoint as soon as possible and no later than 1st September.

Details from:
Stephanie James
SUCH President
260 Cottingham Road
Hull HU6 8QG
Tel. (0482) 43007 0 30a.m. - 4 30p.m.

Closing date for applications 30th June 1978.

Librarians

LONDON
THE LIBRARY ASSOCIATION

Intending candidates for the post of:
REFERENCE LIBRARIAN at KINGSTON POLYTECHNIC
are invited to communicate with the Secretary as soon as possible, 7 Ridgmount Street, London, WC1E 7AE.

Colleges and Institutes of Higher Education

LONDON EHE
Ealing College of Higher Education

LII in Computer Studies
(1 year Temporary Appointment)

To teach on a range of Economics, Business and Accountancy courses, mainly at degree level or equivalent.

Applicants should have a sound knowledge of high level programming languages and of the applications of computers to industry and business. This post is tenable from 1 September, 1978, to 31 August 1979, only.

S.L/LII/LI in Accountancy
(Two Posts)

Candidates should have a first degree and preferably a post-graduate, or professional qualification. They should be prepared to teach at undergraduate level and/or on professional courses.

The posts are tenable from 1 September 1978, or 1 January, 1979.

Salary: S/L £6453 to (possible maximum of) £7974 pa inclusive; LII £4503 to £6960 pa inclusive; LI £[?]94 to £5736 pa inclusive. Closing date. 7 July, 1978.

Research Assistant

[in] the political economy of visual communications (Re-advertisement).

[A] B.A. required with a background in sociology and/or economics to assist on an inter-disciplinary project into the visual communications industry. Salary dependent on age and qualifications but not less than £3618 pa inclusive. Closing date for this post is 30th June, 1978.

Application forms and further details from The Chief Administrative Officer (TD/[?]), Ealing College of Higher Education, St Mary's Road, London W5 5RF.

Ealing EDUCATION SERVICE

Colleges and Institutes of Higher Education continued

DORSET
COUNTY COUNCIL
COUNTY EDUCATION DEPARTMENT
BOURNEMOUTH AND POOLE COLLEGE OF FURTHER EDUCATION
CHIEF LIBRARIAN

[illegible]

Appointments Wanted

ARTS GRADUATE P.G.C.E.

[illegible]

Holidays and Accommodation

COTTAGES DORDOGNE, TUSCANY

[illegible]

Colleges of Higher Education continued

COUNTY OF SOUTH GLAMORGAN
INSTITUTE OF HIGHER EDUCATION
FACULTY OF ART AND DESIGN
(Formerly Cardiff College of Art)
DEPARTMENT OF HISTORY AND THEORY OF ART AND DESIGN

LECTURER GRADE II (TWO POSTS)
Salary: £4,101 to £6,558

Applications are invited for the above posts to commence as soon as possible.

Candidates should possess a Post Graduate qualification in the History of Art and/or History of Design. Experience in teaching to degree level is essential. Professional commitment and current participation in Design History would be an advantage.

DEPARTMENT OF THREE DIMENSIONAL DESIGN

LECTURER GRADE II—INTERIOR DESIGN
Salary: £4,101 to £6,558

Applications are invited for the above post to commence as soon as possible.

The Department of 3D Design comprises BA(Hons) Ceramics, Vocational Courses of three years' duration in Industrial Design and Interior Design leading to an Institute Diploma in Design and assessment for Diploma Membership of the SIAD.

The successful applicant will be expected to make a significant contribution to the development of a BA(Hons) Degree Course in Interior Design. Applicants should be well qualified and study or research at a higher degree level would be an advantage.

Further particulars and application forms are available from the Deputy Principal, South Glamorgan Institute of Higher Education, Western Avenue, Llandaff, Cardiff, CF5 2YB, to whom they should be returned within 10 days of the appearance of this advertisement.

F. J. Adams, Director of Education, Education Offices, Kingsway, Cardiff.

PART-TIME LECTURERS IN LAW

Lecturers/Tutors are required for 1978/1979 to teach full-time and part-time University of London External LLB students.

We are looking for persons who are:
Professionally qualified or who have a degree in Law.
Enthusiastic to teach on an intensive course.
Available on Saturdays and for a few hours on other days by arrangement. Available throughout the academic year.

We give: The opportunity of teaching really keen students. Excellent remuneration.

Please write or phone for an application form to:
D. Beattie,TD,BA, Registrar. Chart University Tutors Ltd., Modern Court, Fleet Lane, London EC4A 4EE. Tel: 01-248 3383

GRADUATE SECRETARY
FOR
THE GERMAN HISTORICAL INSTITUTE LONDON

Applications are invited from qualified English graduate secretaries with a first-class knowledge of German who are capable of translating scholarly German into sound English and of carrying out minor editorial and research work as well as being prepared to type both English and German manuscripts.

The salary will be around £4,000 p.a.

Further particulars may be obtained from: The Administrative Officer, German Historical Institute, 42 Russell Square, London, WC1B 5DA. Tel.: 01-580 1758.

Overseas

AUSTRALIA
Government of Victoria
Post-Secondary Education Commission

Appointment of Chairman

The Victorian Government will shortly establish a Post-Secondary Education Commission, as authorised by the Post-secondary Education Act 1978, which was passed by the Victorian Parliament in the recent Parliamentary Session.

The Act provides for the appointment of a full-time Chairman, a full-time Deputy Chairman and six part-time Commissioners. (Information concerning the Act can be obtained from the Office of the Agent-General for Victoria, Victoria House, Melbourne Place, Strand, London, WC2B 4LG).

The principal functions of the Commission will be to co-ordinate the planning, organization and administration of all post-secondary educational institutions in Victoria in order to provide for the balanced development of post-secondary education throughout the State in the best interests of the whole community.

The Commission will have to work closely with all Universities, and the Victoria Institute of Colleges, the State College of Victoria and with the appropriate Commonwealth Government bodies.

Enquiries are invited from men and women who are interested in the appointment of Chairman of the Commission or who wish to suggest suitably qualified persons who might be interested. It is envisaged that the Chairman will hold an appropriate tertiary qualification and will have worked in one or more fields of post-secondary education. A salary in the vicinity of $A40,000 (£24,800 approx.) per annum will be offered together with a personal allowance. Initial appointment may be for a period of up to seven years.

Letters should be addressed to the Minister of Education, Education Department, No 2 Treasury Place, Melbourne, Victoria, Australia 3002, and marked "Personal and Confidential".

All enquiries and suggestions will be treated as confidential. They should be received no later than 20th August, 1978.

POLICY RESEARCH WITH THE TAVISTOCK

The Social Science Research Council has awarded the Tavistock Institute of Human Relations a grant for a study of the Dynamics of Policy Conflict and Change in Strategic Development Planning. There is a vacancy on this study for a research associate in the Institute's Centre for Organisational and Operational Research—a multi-disciplinary unit which includes the Institute for Operational Research and carries forward I.O.R.'s established interest in policy and planning processes.

The successful applicant is likely to be in his or her twenties; to have a good first or higher degree encompassing theories of relevance to political decision processes and preferably, to have acquired some experience of the current structures of local government and development planning in Britain. The appointee will probably be based at the Institute's Coventry office, with some travelling within the U.K. Salary will be on a scale up to £5,000, depending on age and experience. Applicants should write, setting out their qualifications and interests, to [illegible], Tavistock Centre, Belsize Lane, London NW3 5BA.

WORKERS' EDUCATIONAL ASSOCIATION

(West Midlands District) Applications are invited for two separate posts.

I. TUTOR ORGANISER FOR SOUTH STAFFORDSHIRE.

Applicants should be graduates interested in teaching liberal studies to adults and in organising the provision of adult education in co-operation with voluntary and community organisations, L.E.A. officers and Extra Mural tutors. In this case the emphasis will be on teaching ability and an interest in industrial and trade union studies.

Salary scales: I. £[?] to £[?] or II. £[?] to £[?] (under review).

II. DISTRICT DEVELOPMENT OFFICER and ASSISTANT TO THE DISTRICT SECRETARY.

Applicants should have administrative and/or organising experience and preferably some knowledge of adult education. The officer will be based at the District Office but the post will entail some travel and organising in the West Midland District.

Salary scale: £2,913 to £3,645 (under review).

For both posts: initial salary according to qualifications and experience; commencing date as soon as possible.

For further particulars and application forms write (enclosing S.A.E.) to the District Secretary, W.E.A., 9-11 Digbeth, Birmingham, B5 6BH. Closing date for applications for both posts: June 30th.

General Vacancies

COUNCIL FOR NATIONAL ACADEMIC AWARDS

ASSISTANT REGISTRAR (SCIENCE)
(re-advertisement)

Applications are invited for the post of Assistant Registrar with responsibilities in Science; previous candidates need not re-apply for this post.

In addition to their work in specified fields, Assistant Registrars are involved in the development of academic policy.

Candidates for the post should be well qualified academically and should have had appropriate teaching and/or academic administrative experience, preferably in the field of Higher Education.

The salary on appointment will be within the scale £6,453 to £8,220 (merit bar £7,467) including London Weighting.

Further particulars of the post may be obtained from:
Secretary (S),
Council for National Academic Awards,
344/354 Gray's Inn Road,
London, WC1X 8BP,
to whom applications giving details of qualifications and experience and mentioning the names of two referees should be submitted by 14 July, 1978.

INSTRUCTORS

In CANOEING, GYMNASTICS, ORIENTEERING, SAILING, SURFING and WATERSKIING required. Now July to September. Ability to organise groups, adults and children. Qualifications, smart appearance and manner essential.

Applications in writing to Mr J. Garland, 15 Courtlands Centre, 19 Kingsbridge, South Devon. Tel.: [illegible]

EDUCATION WORKER

To co-ordinate and develop the educational section of Unity Association, to counsel and advise young people regarding education and training and to organise a supplementary education programme now being developed by the Association.

For further details and application forms please write to Unity Association, [?] Lancaster Road, London, W11.

Overseas continued

IRAN
FACULTY POSITION AVAILABLE IN IRAN
ELECTRICAL ENGINEERING FACULTY

Position at the ASSISTANT/ASSOCIATE PROFESSOR level with speciality in Electromagnetics, Communications, Systems & Control or Electronics. Position requires undergraduate and graduate teaching and graduate research activity. Qualifications include the Ph.D., teaching experience and/or recent post-doctoral or industrial experience. Generous salary based on individual basis.

Send résumés and names of two referees to M. [illegible], School of Graduate Studies, NIIT, P.O. Box 41-3144, Tehran, Iran.

THE NEW SOUTH WALES INSTITUTE OF TECHNOLOGY SYDNEY, AUSTRALIA

The New South Wales Institute of Technology is a corporate institution established to provide a wide range of professional courses for those entering or already employed in industry, government and technological fields. Applications are now invited for the following academic positions in various Faculties.

FACULTY OF BUSINESS STUDIES

The Faculty of Business Studies currently offers a Bachelor of Business Degree with concentrations in Accounting, Marketing, Operations, Management and Public Administration. In addition, the Graduate Diploma in Accounting and the Graduate Diploma in Personnel Management/Industrial Relations were introduced in 1977 and it is anticipated that expansion of graduate courses will proceed in the near future. Total current enrolment in the Faculty approximates 2,600 students.

Head, School of Finance & Economics

The School anticipates offering an area of concentration within the Bachelor of Business degree in Applied Economics. Further, a Graduate Diploma in Finance is being planned for introduction in the near future. The School will further be offering Finance and Economic subjects in other Graduate courses that are being offered within the Faculty of Business Studies.

The appointee should possess a doctorate (or equivalent) and should have substantial experience at an appropriate level in higher education in the Business Studies field. The appointee will have been obtained by teaching and/or administering in a Faculty of Business Studies at a recognised university or polytechnic.

It is desirable that the Head of the School will have had substantial business experience and should be registered or registerable as a consultant in business or in practice.

The position of Head of School carries with it the responsibility for the academic leadership of the staff of the School and day-to-day operation of the instructional and research work. As Head of School the appointee will be an ex officio member of the Academic Board and the Faculty Board and may be called upon in the future, to assume the duties of the Dean of the Faculty.

Senior Lecturer in Accounting

Applicants for this position must possess a higher degree with a major interest in Accounting and should preferably have an interest in the financial accounting/audit or management accounting/systems areas. In addition, sound professional accounting experience in public accounting commerce, government is sought. Teaching experience at tertiary level is desirable. The position carries responsibility for providing academic leadership in the School in appropriate disciplinary areas and undertaking specific administrative duties within the School and the Faculty.

Lecturer in Accounting

Applicants for the lectureship in the School of Accounting should possess an honours degree or a higher degree with a major interest in Accounting; or graduates with a substantial record of professional or other tertiary institution and with professional or commercial experience will be considered. Applicants with a Master or a higher degree may apply at the appropriate point and progress towards a higher degree and take substantial part-time in a tertiary institution or in the profession or commerce.

Visiting Lectureship in Accounting

Several visiting lectureships in Accounting will be available during the next three years for overseas periods of one year each commencing times negotiable to suit the successful and the appointment. Qualifications for this position are broadly similar to those for a lectureship in Accounting detailing above. Visiting lectureships are usually for a period of two semesters and salary level is equivalent to that of a permanent member of staff. Fares are provided on the basis of one return economy class air fare per recruited of appointment.

Senior Lecturer/Lecturer in Finance

Applicants should possess postgraduate qualifications in a major field of Finance and have had teaching experience. The successful applicant will be well qualified in finance studies and have a sound quantitative background. Practical experience in business or government is desirable. The duties of the appointee will include lecturing and co-ordinating in one or more subjects such as Financial Management, Financial Institutions, International Finance, Investment Analysis and Portfolio Management.

Visiting Lecturer in Finance

The School of Finance and Economics has a position vacant for a Visiting Lecturer in Finance. The successful applicant will have graduate qualifications in Finance and have had some teaching experience together with practical experience in business or government. The duties of the appointee will include lecturing in one or more subjects such as Financial Management, International Finance and Investment Analysis and Portfolio Management. The visiting lecturer could be appointed for a one or two-year period. Fares are provided on the basis of one return economy class air fare per semester of appointment.

Senior Lecturer in Industrial Relations

Applications are sought from graduates in the field of industrial relations, labour economics or other relevant fields. It is expected that applicants will be undertaking or have completed postgraduate studies in industrial relations or a closely related field. However, consideration will also be given to applicants without postgraduate qualifications in the industrial relations field, but with extensive experience at a senior level in an employer or employee organisation, appropriate government department or tribunal.

The appointee will be responsible for providing leadership in the industrial relations field within the School of Business and Public Administration and will be required to teach at both the graduate and undergraduate levels. He will assume major responsibility for the development of relevant courses in his field and will be expected to ensure that academic standards are maintained and developed, and that the content of syllabuses remains aligned with contemporary needs.

The appointee will be expected to be fully familiar with the Australian multi-dimensional context of industrial relations. He should also be familiar with the activities of the various tribunals, trades unions and employer organisations as well as having a sound grounding in the theory of this subject area. In addition, he should be able to initiate and supervise field and research work in this area.

Lecturer in Economics

Applicants should have good academic qualifications including a higher degree. The appointee will probably have either at least several years' experience in lecturing/tutoring or have postgraduate level experience as an economist in business or government. Preference will be given to applicants having a sound knowledge of labour or industry economics. Consideration will also be given to applicants who have had experience in the quantitative application of economics in the areas of business, government or research.

Lecturer in Business Administration

Applicants should possess an appropriate higher degree and should be well prepared in management and organisation studies. In addition to these currently undertaking higher degree studies. Experience in either business, government or consulting is desirable. The duties of the appointee will include lecturing in either quantitative operations management subjects, management/human subjects, or some combination of these subject areas. The appointee will also be involved in certain administrative activities in the School.

FACULTY OF ENGINEERING

The Faculty of Engineering comprises the Schools of Civil Engineering, Electrical Engineering and Mechanical Engineering. Each School offers undergraduate programmes leading to the award of Bachelor Degrees and graduate programmes leading to the award of Master Degrees and Graduate Diplomas. Undergraduate programmes adopt cooperative education principles in which students are required to obtain significant periods of industrial experience concurrently with their academic work. The Faculty has established a close professional engineering association with industry and government.

Principal Lecturer in Civil Engineering

The engineer appointed in this position in the School of Civil Engineering will be required to co-ordinate classes, supervise undergraduate project work and help develop postgraduate courses. The School offers Bachelor Degree Courses in Civil Engineering and Structural Engineering. Higher Degree Courses in Civil Engineering and Civil Engineering Materials. Diploma Courses in Civil Engineering and Civil Engineering. The School has developed special interests in the field of Soil Mechanics, Concrete Technology, Structures, Concrete Admixtures. Should have industrial experience at an appropriate level of responsibility and will possess a suitable degree in an appropriate field of Civil Engineering.

Lecturer, School of Civil Engineering

A lecturer is required by the School of Civil Engineering to specialise in the field of Public Health Engineering.

Health and environmental engineering subjects are to feature in public health engineering. Supervision of final year projects will be required in undergraduate studies. Part-time postgraduate courses in environmental engineering are also offered.

Applicants should possess a higher degree, have had appropriate industrial experience and some teaching experience.

FACULTY OF LAW

The Institute's Faculty of Law commenced teaching in 1977 and offers courses leading to a degree in Law.

Senior Lecturers/Lecturers

Lecturers will initially be teaching introductory Law subjects though staff will be given the opportunity to develop subjects in which they have special interest.

Applicants should possess appropriate academic and professional qualifications. Teaching experience at a tertiary level or other tertiary institution and professional experience are desirable.

FACULTY OF MATHEMATICAL & COMPUTING SCIENCES

Principal Lecturer in Stochastic and Statistical Methods

The School of Mathematical Science offers two major courses. One is a degree course in mathematics leading to the Bachelor of Applied Science. The second is a Graduate Diploma course of Master of Applied Science awarded on the basis of approved research work and theses. The School has 26 academic staff and normally consists of a Department of Applied Mathematics, a Department of Operations Research and a Statistics Unit.

This successful applicant will be expected to teach a range of mathematical topics, both for the mathematics degrees offered by the School and for the courses provided for other Schools in The Institute and it is intended that he will coordinate the service teaching for those Schools. The Principal Lecturer will also act as Head of the newly created department of Stochastic and Statistical Methods for an initial period of three years. An applied mathematician preferably with teaching experience and whose research has been concerned with physical systems involving stochastic-type processes would be an ideal candidate. One important objective of the appointment is the strengthening of the School in areas relevant to the Institute and its applications. Applicants should have published work in this area with evidence of recent activity.

Salaries are in the following ranges :-

Head of School	$A29,232 to $A31,381 pa
Principal Lecturer	$A24,508 to $A28,498 pa
Senior Lecturer	$A20,104 to $A23,432 pa
Lecturer	$A14,984 to $A18,684 pa

With permission of Council academic staff are permitted to undertake limited consulting work.

Fares and a contribution towards removal and initial accommodation expenses are provided for overseas appointees not on a visiting basis. A Housing Loan Scheme is also available.

Applications close on July 21, 1978. Applicants should arrange for three confidential referees' reports to arrive by the same date. Applications should include : address ; telephone number ; personal particulars ; documentary evidence of qualifications, work and teaching experience ; affiliations ; publications ; research work undertaken ; and the names and addresses of the referees contacted. Applications and referees' reports are to be sent to :

The Agent-General,
NSW Government Offices,
66 The Strand,
London WC2N 5LZ, ENGLAND.

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Overseas

OVERSEAS TEACHING POSTS

ASSOCIATE PROFESSOR OF ENGLISH
(SENEGAL)

Department of English, University of Dakar.
This senior post will be tenable from October 1978 and the person appointed will be expected to teach English Language at both undergraduate and post-graduate level and to take a part in the running of the Department. Some teaching of Literature in English and British Civilisation may also be involved.

Qualifications : Higher degree (preferably Ph.D) in teaching experience at university level ; knowledge of English Language at both undergraduate and post-French educational system : fluent French. Preferred age 35-55.

Salary : £7,249-£9,129 pa.

Benefits : personal and children's allowances ; free furnished accommodation ; children's education allowances ; baggage and installation allowances. Two-year Formula contract. 77 RU 39

3 ENGLISH TEACHING ASSISTANTS
(HUNGARY)

To teach English in the Departments of English at Eotvos Lorand University, Budapest ; Kossuth Lajos University, Debrecen ; Attila Jozsef University, Szeged. Candidates for all three posts should be British nationals, preferably single, hold a degree in English or a modern language from a university in Britain and a qualification in TEFL with at least two years' experience.

Salary : for all three posts Forints 3,800 per month, taxfree, non-convertible (present rate of exchange 36 Forints=£1). Sterling subsidy of £2,030 paid in Britain.

Benefits : Free accommodation ; overseas allowances ; medical scheme ; one year Minor Benefit contracts, renewable. 78 UH 86, 87

CHIEF LIBRARIAN
(IRAN)

Reza Shah Kabir University, Baboisar
To be in charge of development of all University library facilities/systems ; to establish the services, and stock of the new Social Sciences and Humanities Library and instruct students in library use.
Candidates, preferably 30-40 years, with degree and Dip. Lib. MLS or equivalent and at least eight years' experience in a university library, including specialisation in Social Sciences/Humanities, required
Salary : £11,000-£14,014 pa approx.
Benefits : Return air fares for family ; free campus accommodation ; two-year contract, renewable. 78 HU 92

TEACHER OF SILVICULTURE AND TEACHER OF BOTANY
(IRAN)

To teach up to BSc level, give practical instruction, set and mark examinations, assist with curriculum development.

Degree plus post-graduate diploma, or preferably MSc, in forestry or related subjects and at least two years' relevant teaching experience. Candidates, men only, single or married with maximum two children under five.

Salary : £5,750-£7,048 pa tax-free.

Benefits : Personal and children's allowances ; free furnished accommodation ; return fares ; baggage allowance. Two-year contracts. 77 HO 40-42

ADVISER IN THE TEACHING OF ENGLISH FOR SCIENCE AND TECHNOLOGY
(INDIA)

The Indian School of Mines, Dhanbad.

MA in Applied Linguistics or comparable qualification in TEFL and considerable experience in Syllabus Design and materials production for ESP.

Salary : £5,681-£7,707 pa+ 10% inducement allowance.
Benefits : Free accommodation ; overseas allowances.
Two-year KELT contract. 78 PO 140

LECTURERS IN ENGLISH
(SINGAPORE)

Institute of Education, Singapore

15 lecturers to teach Certificate and Diploma of Education courses in Department of English Studies.
Qualifications : Degree plus MA in English or Education. A teaching qualification plus three years' school teaching or specialist experience desirable. Post-graduate qualification in TESL/TEFL or Linguistics and teacher training experience required
Salary : $1,705-2,420 pm (Rate of exchange approximately $4.30=£1.
Benefits : two or three-year contract. Housing allowance, displacement allowance, gratuity on completion of contract. 78 PO 141-155

Return fares are paid. Local contracts are guaranteed by the British Council. Please write briefly stating qualifications and length of appropriate experience, quoting relevant reference number and title of post, for further details and application form to The British Council, 65 Davies Street, London, W1Y 2AA.

THE BRITISH COUNCIL

General Vacancies continued

THAMES VALLEY REGIONAL MANAGEMENT CENTRE
RESEARCH GROUP

'RESEARCH ASSOCIATE'
(Salary : £3,300 - £3,800)

required to work on SSRC funded project concerned with the feasibility of measuring managerial orientations and effectiveness.

Applicants should possess a post-graduate qualification in behavioural or social sciences. Some general knowledge of management and appropriate research training or experience (especially statistical methods) instrument development and testing, and interviewing.

The appointment will be for up to 18 months commencing 1st September, 1978, and the successful applicant will work under the supervision of Dr. Roger Bennett.

Possibility of secondments will be considered.

Further particulars from : Thames Valley RMC, Wellington Street, Slough SL1 1YG ; telephone Slough 33669.

Polytechnics continued

BRIGHTON POLYTECHNIC COMMUNAL SERVICES

Welfare and Accommodation Officer

£3396 - £3773 inclusive of supplements

To advise students on personal matters including the various social services available to them; legal services and help; to liaise with organisations catering for students' needs, Social Services, Home Office, etc; to advise students on selection of accommodation and assist with negotiations.

For further details and an application form please apply to the Personnel Officer, Brighton Polytechnic, Moulsecomb, Brighton BN24GJ. Tel: (0273) 693655 Ext. 2537. Closing date July 7th 1978.

BURWOOD STATE COLLEGE
MELBOURNE AUSTRALIA

DEAN OF TEACHER EDUCATION

Applications are invited for the position of Dean of Teacher Education. The Dean is one of Dean Deans, the College responsible for (a) In-Service Education courses, (b) pre-service education courses, and (c) the planning and development of both.

The appointee will be responsible for the various teacher education courses, and for developing new courses to meet the needs of the teaching profession. Present courses of concern to the Dean of Teacher Education are : the Undergrad Diploma of Teaching (Primary) (entrant to a fourth year and the B.Ed (Primary) ; the full-time Bachelor of Education for specialist secondary teachers in Art/Craft, in Health Physical Education and Recreation, and in Music and the graduate diplomas in Education and Teaching.

An increasing number of the College's 1,650 students will be teachers with considerable experience upgrading their qualifications on a part-time basis.

The applicant should be a person of acknowledged scholarship with postgraduate qualifications and with experience in the field of teacher education.

Salary $A31,381 per annum.

Applications which should contain full personal details of qualifications and experience and the names and addresses of three professional referees, should be sent, by air mail to The Academic Registrar, Burwood State College, 221 Burwood Highway 3125, Australia. A copy of the application should be sent to the Association of Commonwealth Universities (Appts.), 36 Gordon Square, London WC1H 0PF, from whom further information may be obtained.

Applications close 11 August, 1978.

Universities continued

UNIVERSITY OF CAMBRIDGE
UNIVERSITY LECTURER IN CHEMICAL ENGINEERING

Applications are invited for the post of University Lecturer in Chemical Engineering. The successful applicant will take part in the teaching programme in the Department, and is also expected to undertake research in a field of his or her own choice. Graduates in chemical engineering would be particularly appropriate candidates, but applications will also be welcomed from graduates in other branches of engineering, or in chemistry, biochemistry or physics. Industrial experience would be an advantage. The appointment will be for three years with the possibility of re-appointment to the retiring age. The present pensionable scale of stipends for a University Lecturer is £6068 a year, rising by twelve annual increments to £7782.

Further information may be obtained from Professor J. F. Davidson, Department of Chemical Engineering, Pembroke Street, Cambridge CB2 3RA. Closing date 30th September 1978.

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Lorraine Williams 01-837 1234
Extn 575

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Gray's Inn Road, London WC1X 8EZ

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If you are interested please ring Mrs Annice Lightfoot, The Times Educational Supplement, Gray's Inn Road, London WC1X 8EZ. Telephone: 01-837 1234.

Don's diary

Monday

On the way I shore myself up with proverbs. The Greek saying "Beginning is half the whole job" is too optimistic, never borne out by experience. An Irish one "Strife is better than loneliness" could prove too apt before the week is out. As an Irishman who spent years in Australia starting a new classics department, and years in Southampton reviving a not so new one, I could give a course of lectures on strife.

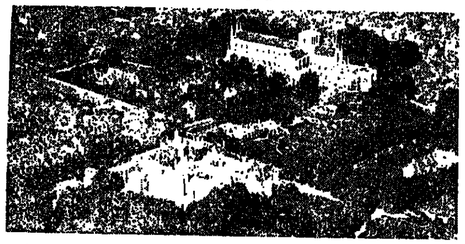
Classics involves struggle nowadays, unless you pretend there is no problem and simply let the breed die out. I don't much care if the old breed does not continue. I'd like to see a new species brought to life which can understand and transmit the vitality and intelligence of the ancient world, and sees scholarship as a means not an end. There's no point in living like a genteel family in decay, with no money to mend the roof, the tradesmen getting cheekier, and respected portraits falling off the walls every time somebody sneezes. We are not the core of the humanities now.

There is none. We can provide a useful, colourful pattern in the expanded spectrum of knowledge, and that's all. Over the years classicists have shown an un-Hellenic lack of adaptability to educational changes. Hence the anxiety and shambles of a few years back, when there was a shattering decrease in student numbers, and the sharpening of knives was heard in the land.

I was imported from Monash five years ago to introduce new courses depending on translations, as I had done in the antipodes (insulting word). "There's the water, you walk on it. You'll have every possible assistance short of actual help." It has been managed. Numbers are encouraging, and Southampton has a purpose-built centre of the new non-language kind, not (as in some places) a botched aggregation of left-overs from traditional classics.

Tuesday

One way of acquiring enemies and alienating people is to edit a periodical. *Apeiron*, a journal for ancient philosophy and science, was started twelve years ago by a colleague and myself at Monash. I have a clutch of antithetical correspondence between him and a contributor who amongst other things wants at a late stage in the production of his article to change some implicator signs. Not funny. Soothing editorial letters will converge on him from Monash and Southampton.



Winchester: a view that makes for a "journey of restoration".

Apeiron was the first of its kind in Australasia, and it embodied the modest hope that it might help in the historical area at least, to bridge the gap between science and non-science. The two-culture fault that runs through our society may ultimately cause society's ruin. It's destructiveness, both realized and potential, cannot be over-emphasized.

Never a week passes without my being reminded of my Australian past. I like to hear about the picaresque high-jinks of Australian colleagues, their lively spirits and hard work. The old arts don play of "I'm working-at-home-today—and-don't-want-to-be-disturbed" doesn't occur so much there, and it will have to go here too if we're to have professional credibility.

Wednesday

There are better times to rise than 6.30 a.m. My wife and I live in the country, and need plenty of time, first to drive to Winchester, where she teaches classics (both the traditional kind and the "new") at a girls' school. From Winchester I come down the A.33 to Southampton.

Question: Why not live in Southampton and save at least 25 miles per diem? Not hard to answer: We've tried it. Upper Swanmore is well worth the trouble for the oxygen and the beautiful environs. Over the soft, green, uninterfering hills to Morestead and Winchester is a journey of restoration rather than strain. The road bruks out on to a ridge, and Winchester is seen across the valley. We look over towards a landmark close to the prep school where our twelve-year old is and put in words inevitable eye-opener about parental thoughts about him.

This afternoon there is senate; an atmosphere of muted, deprecating pomposity and rustling papers. Our senate is still unreformed, but changes are coming that allegedly will reduce professorial dominance. Whatever change is made will make little effective difference, since there is nothing to show that lecturers will be less silly senators than professors. Today the main fuss is DES's terror document about the fall in the 18 set group in the 90s, plus accompanying questionnaire.

We don't believe a word of it, of course, but we can't produce really hard figures to confute it. Figures need to be defused by figures. And were the questions so illiterate as we think? What if DES had not bothered to ask us at all? A sense of oppositional elation, a bold desire to tell DES where to jump, the infectious illusion that group sentiment unarmed can alter facts of power. If sentiment persists, it can find its means, but academic sentiment often evaporates at tea-time.

Thursday

Invigilation of an exam this morning. I see rows of concentrated faces. They all seem to know what they are doing, and push resolutely through their three hours' task with no faintings, no temper. They are geographers, outward-looking. I read a belated essay on the oral tradition in Greek epic, work connected with the new "translation" course.

I see the good influence of our gifted fellow in creative writing, who talked to the class about the oral literature of the Gaelic west of Ireland where he lived for some years. Students in the new course can produce mature critical essays that you would be glad to have from much more senior people in traditional classics.

It's a question of emphasis, I suppose. In Australia, when I did something that was not liked, it would often be put down to the fact I was Irish. Here, it is because of being "Australian". The trouble with the lesson in this is that the only people likely to benefit from it are insufficiently insular to need it.

I don't like the Irish jokes that are going about now. A compatriot in London University has started to tell them in self-defence, and admittedly it tells them better than the locals. But ethnicity doesn't get me off the hook with a colleague who comes to see me about putting more strength into the new course.

He perceives a distinct odour of Micky Mouse in our present arrangements and wants the modest beginners' language course to be enhanced, or else a touch of computer work added. But Micky Mouse is where you find him, I argue there is a high Micky Mouse factor in the old ways of rumbling through set texts like a dose of slow laxative.

"Irrelevant", he says. I imply nastily that he underestimates the effect of carefully planned grading of the teaching material in achieving a really high standard quickly. Do I convince? No. I go into exile with Archilochus, that vicious, bitter-tongued poet of the Seventh Century BC. I am composing one more article about the new Papyrus that contains possibly his dirtiest poem. Papyrus is classics' frontier.

In the poem Archilochus is [illegible] something complicated to a girl who turned him down. I suspect may be the sister of the combined experience of classicists of Europe and America has not been able to decide precisely what it is doing to her. Of course Papyrus is a bit tatty at the moment, but that is no excuse. Are we humanists or are we not?

Friday

Interesting session with a research student working on Australian ingratiating Gaulish versifier rhetorician of Fourth Century. The student is progressing and I feel confident in his [illegible]

We are now opening chests at the edges, driving it out of time-capsule. Another researcher, this time on [illegible] painting, happens to show papers about a job in my old college, TCD. Salary is better than UK rates. There is a non-contributory pension and good tax [illegible] ance for professional expenses. Republic is not very rich [illegible] the world coming to at all?

Five o'clock. I do the reverse each morning's journey. I collect my wife at her school. It is a clean cool place, female dominion, secularly conventual. Women are great at organization and management and we should let them do a lot more of it. After all, they are here to stay. Also they like men wonderfully. Why not a woman as Southampton's next [illegible]? Somebody with the heart and outlook of a king. There isn't even a woman professor in it at present. "How's that for low?" as I always say.

The weekend

I don't work on classics on Sunday. I'd like to say I cultivate the garden, but I fear exaggeration merely attempt what seems necessary. The poet Alcman is said to have learnt his metric from birds singing in lonely places. He is pretty busy with his noble task where I live. A bit of course servicing could be indicated, but we decide on a much pleasanter afternoon in Salisbury.

On Sunday our conventual boy is home from school for a few hours. In the evening we get down to it. Now that lecture term is over, the exam scripts have [illegible] arrived, it will be research.

H. D. Rankin

The author is professor of classics at the University of Southampton.

Private aims, public needs

[illegible] or not—and *The Times* does not—the University College at Buckingham exists. The college now has 60 students and its first licence-holders graduated earlier this year. It has acquired a huddled but cosy campus made up of former barracks, piggeries, convents and mills along the banks of the Ouse. Its financial future seems modest but secure.

Of course, this small exclusive college in a sleepy market town, set in their different ways divorced from the life of modern Britain, is a long way from the Independent University envisaged by enthusiasts for "free enterprise" higher education 15 years ago. The great trumpet blast that was to have brought the walls of state control of universities and colleges tumbling down turned out to be a tin whistle—bright, serviceable but not very loud.

Part of the reason for this yawning gap between ambition and achievement was the pusillanimity (the uncharitable might even call it hypocrisy) of all those supporters back in the late 1960s. Happy enough to subscribe their names to manifestos, they dwindled away when the time came to dig into their pockets or put their careers on the line.

Even those who, like ourselves, see no virtue in an Independent University anyway are forced to respect Professor Beloff, and his successor, for their pugnacious leadership. They at least have not been afraid to stand up and be counted in their cause.

But the true reason runs much deeper. It arises from the inevitable ambiguity of a truly private institution in a society where private and public are inextricably intermingled. An institution like Buckingham faces a clear choice. It can remain true to its founding principles and shun all contact with the state (no Royal Charters, no mandatory student grants—but at the same time accept the inconsequent isolation may condemn it to being an irrelevant oddity. Or it can compromise and try to achieve a détente with the state (perhaps on better terms if Mrs Thatcher ever becomes Prime Minister?).

At least this second road is well signposted. It has been travelled before by 44 universities. But Buckingham cannot have it both ways. Indeed the dilemma the college faces is probably even more unattractive. The true choice is: if you can't beat us, join us—if you don't, you will certainly lose. Either way not much is left of the idea of an Independent University.

That, of course, is the trouble. The idea is still strong. An Independent University is as much a nonsense as the customer-contractor principle which Rothschild recommended should guide research policy—and for similar reasons. Both assume that what are essentially intellectual transactions are the business of no one except those who are directly involved in making them.

Yet higher education is clearly a public good, not a private commodity, and so—unless we accept the view that what is good for General Motors is good for America, with or without its Hayekesque gloss—should be developed in the context of public policy. Professor Beloff's courage was misplaced after all, and the fund of the erstwhile supporters of an Independent University can count as wisdom.

Financing student unions

Now is an opportune time to implement changes in the student world. There is no major clash to cloud the issues and proposals such as those for a new system of financing student unions can be considered on their merits in a stable atmosphere. As a set of general principles, the NUS proposals are basically sound and have been treated as such by most of the interested parties. They are, in theory, a distinct improvement on the present arrangements and represent the compromise most likely to be acceptable. While there are signs that not all students may have the confidence of their leaders that the motivation behind the changes is disinterested, the scheme has had an easy ride until now.

Any suggestion of voluntary membership of student unions, such as that Fraser is advocating in Australia, is now restricted to fringe organizations of the right. While the fears of British students for the autonomy of their unions, which now recognized that guaranteed income necessary for the unions to survive.

The main concern is for the possibility of students for the public money they spend—a principle accepted by the NUS. Payments to political causes are now far less common than in the days of the Tory proposals of 1971, due perhaps as much to the effects of inflation as to the changing attitudes of students. Audited accounts are already a condition of NUS affiliation and the unions should have little to worry about in opening their books.

From the point of view of the paymasters—the local authorities and the universities—it is only reasonable that those who pay the bill should have their say in determining the amount. Like the students, they will have areas of concern, such as the figure set as a maximum for the guaranteed grant from central government, which may require alterations.

However, both sides recognize that a workable new system along the lines suggested would have its benefits. The addition of an agreed "autonomy charter" would allay student's fears on the question of self-determination, while a system which ensured that justice was seen to be done by the unions could be a strength for the future.

Research into the 1990s

[illegible] universities have been quick [illegible] on the failure of the Department of Education and Science to consider the future of research in discussion document *Higher education into the 1990s*. They have been right to do so because this is a most serious omission.

In the humanities teaching and research form an organic whole. In the natural sciences, although the gap between teaching undergraduates and research at rapidly expanding frontiers of knowledge is widening, the vitality of research depends on student, particularly postgraduate, numbers. In the social sciences neither individual has the same force but the [illegible] effects of both together [illegible] the same. So any attempt to treat teaching and research as separate issues, even by accident, should be firmly resisted.

On the other hand, the temptation to extend this particular criticism of the discussion document into a wholesale rejection of the value of the whole exercise should be equally firmly resisted. The DES and the SED may have got some of their priorities a little mixed up.

For example, they hopefully refer to the university/polytechnic split of total higher education numbers as an "essentially second order question". But this does not invalidate the exercise: it makes it even more necessary. The discussion document may well be an inadequate document but it is not an irrelevant one.

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LETTERS TO THE EDITOR

Dahrendorf's division

Sir,—I am sure I am not alone in expressing surprise at the comments of Professor Dahrendorf in his lecture at University College, London, in which he advocated the separation at research from the universities, placing this important role in a chain of research institutes or an academy (*THES*, June 2).

The traditional system of combining teaching and research in the British university has been its major strength and "to teach through one's research" is in my view, the only sure way of maintaining the excellence of teaching at university level. Moreover if one examines the research record of research institutions as opposed to the universities, the latter emerge in very favourable terms with respect to original contributions and discoveries.

This in part stems from the richness of experience within academic communities whereby scholars from a multitude of disciplines interact, and it is through this interdisciplinary approach that many major advances result. Additionally, in those countries in which research has been separated away from the universities (and I have had experience of such a situation in an eastern European country during a British Council lecture tour), the separation has proved in general terms to be divisive and counter-productive.

I hope those in high places in this country will influence on the course of events in higher education will turn a deaf ear to Professor Dahrendorf's recommendation.

Yours faithfully,
J. G. PHILLIPS,
Professor of zoology,
University of Hull.

Polytechnic needs

Sir,—The comparisons of expenditure between polytechnics recently produced by the Polytechnic Finance Officers Group, although under heavy fire, do attempt to provide dimensions to the large disparities which most staff working in polytechnics know and have known for some years exist. Despite the factors which contrive to confuse the picture and even allowing for the situations which make differences a necessity there can be no justification for many of the disparities highlighted (*THES*, May 26).

In particular, the expenditure on support staff, in clerical officers and technicians, show differences which cannot possibly be accounted for other than by the degree of generosity of the controlling body. The same is also true to a lesser extent in relation to expenditure on equipment, library books, catering, and so on.

It is no secret that Leeds Polytechnic comes at the bottom, or somewhere near, in any comparative expenditure table produced, by whatever body, using whatever formulae and we certainly feel that our support staff provision, in terms of number and grades, falls short of that necessary to conduct a fully efficient institution of higher education. We are only able to function at all by academic staff carrying out many routine clerical functions. It must be said, however, that our aspirations, in particular for support staff, are for a relatively marginal increase, not the doubling of numbers which would be necessary for us to equate with some institutions.

Having said that, it might be even more interesting to peruse the attached table, produced not by Leeds Polytechnic, but by the Local Authority Planning Department during a survey of the central business area of Leeds.

Allowing for some inaccuracies in the figures and good reasons why the university needs more staff to compensate for the hidden legal, financial, architectural, and other services available to the polytechnic through the Leeds education authority, the table indicates even larger disparities, than those shown by the finance officers' report.

It is possible to search for ever for formulae which will attempt to provide accurate comparisons of a marginal nature between institutions, but why bother when such large differences in provision are known to exist and apparently are condoned? What is it that is vital that some institutions of higher education are able to do that others are not and how do some institutions function at all if either levels are essential? What effect do these differences have on the quality of learning in the institutions?

These, surely, are the questions to which answers should be sought and if the publication of information, with whatever limitations, puts this kind of investigation in train it will serve a very useful purpose.

Yours faithfully,
G. C. WRIGHT,
Deputy director resources,
Leeds Polytechnic.

EMPLOYMENT IN MAJOR ACADEMIC INSTITUTIONS IN CENTRAL BUSINESS AREA—1975

Category	University	Polytechnic	Total
1 Academic	1,065	1,058	2,123
2 Non-teaching acs.	525	50	575
3 Domestic catering	250	15	265
4 Technical	890	104	994
5 Library	100	15	115
6 Administration	965	55	1,020
7 Manual	740	257	997
	4,535	1,554	6,089

Source:—Based on figures provided by the Polytechnic Information Office and University Establishments Office—October 1976.

Ulster counselling

Sir, I read with both interest and appreciation your recent article by Maggie Richards on the subject of the Belfast Educational Guidance Service for Adults, an agency established by the Northern Ireland Council of Social Service some 11 years ago and accordingly administered and developed over that period (*THES* May 19).

The council, in its negotiations with the Minister, Lord Melchett, and the department, whilst most courteously received and patiently heard, regretted, and, I would add still regrets, that, in an enlightened day and age when more and more the provision of independent adult counselling services is becoming an established norm and practice in Great Britain, Europe and the United States of America, the Minister and the department should not have realized the developed and indeed developing importance of the principle of such services co-existence with those provided by statutory bodies.

My council was deeply concerned and disconcerted in several areas. Firstly that a Minister who had expressly set up a working party to examine the future of EGSA should choose to ignore their recommendations. The 1975 recommendation of the working party was that EGSA should be continued as an independent unit, but linked with one of the education and library boards, with arrangements for suitable financial contribution from the other boards. The name was to remain EGSA and the existing staff would remain."

Second, that there would most certainly appear to be an error of judgement by both Minister and department, the gravity of which has yet to be proved, in so far as they have failed to recognize the need for a counselling facility to distinctly if not totally separate from a providing body and have not recognized apparently that young people from 16 to 19 years really do have different educational problems from adults and, obviously, vice versa.

Third, to quote the words of Mr Gerry Fowler, former minister of State for Education and Science in the Labour Government, "how very far the Department of Education is removed from international thinking on adult education."

It is quite true that Mr Roland Moyle was the Minister with responsibility for education who decided to ask the education and library boards to undertake responsibility for the provision of adult education guidance services. Mr Moyle was the Minister mentioned some paragraphs previously who chose to ignore the advice of the specially appointed working party on EGSA from the members of the Council for Continuing Education. It was not Mr Moyle, but rather his successor, Lord Melchett, who took the decision to withdraw Government grant-aid for the EGSA.

From the little knowledge we have been able to gather we do not believe it true to say that the Belfast body's service "virtually duplicates the EGSA system" as your otherwise excellent article would seem to suggest. In fact, all protestors against the closure of the EGSA have done so on the grounds that in reality the two services are different in concept and execution.

Also, the post suggested for Dr Eagleson did not promise "an element of counselling" and it was indeed because of this omission that the departmental offer was found to be unacceptable. It was suggested that the department would fund the NICSS to a limited extent so that Dr Eagleson could act as secretary to a working group of the boards, other than Belfast, to examine future provision.

This offer my council accepted but with a treble proviso, namely that EGSA remains as a unit, perhaps on a restricted basis so that existing clients might have a personal and procedural continuity; that "special" types of new clients might be catered for; and that the EGSA facilities might be used for staff training purposes.

Yours sincerely,
MORWOOD MELDRUM,
Director,
Northern Ireland Council of Social Service.

Where theory was put into practice



James Porter

"Man's character is made for, and not by, him." Robert Owen's simple credo still influences much teaching in this country and is a dominant aspect of educational systems in many socialist countries. Owen himself is frequently written off as an unrealistic and pompous dreamer. However, that view can certainly be challenged by the potent evidence of the community he shaped at New Lanark in the first quarter of the nineteenth century.

Swinging around a precipitous bend away from the dour Scottish lowlands, the village still clings to its remote site by the Falls of Clyde. Constructed between 1785 and 1820, the buildings represent Britain's first and most coherent expression of the environmentalist" theory. Coming upon the almost secret site of New Lanark last week, it was salutary to have so many reminders of the origins of the social engineering concepts that have become such an essential part of the modern vocabulary of planning.

Standing central by the mill lade is the institute for the formation of character. Planned and opened by Owen, it was the means by which he attempted to deal with the problem of reforming the character of the adult generation. It had rooms for education; reading rooms, library and recreation rooms. It was used for many purposes including music, dancing, eating and religious meetings. It was the social centre of the village.

The school, completed in 1817, still impresses by its size and neo-classic style. It accommodated the children of the village from the age of one year until they were 10. They were taught on a rational approach, with no punishment, only kindness. There was a wide curriculum including singing and dancing and the use of colourful visual aids. The pupil-teacher ratio was 12 teachers for 194 children in the elementary school and seven teachers for 80 children in the infant school.

In the centre of the village the store was an excellent example of the cooperative system — good quality supplies bought in bulk and sold to the work people at near cost. Profits were reinvested in the village, and in 1823 the money was used to meet the cost of the school.

Owen finally turned his back on New Lanark in 1823, but many of his ideas found expression in different contexts. In spite of all the years between, education still seems to be seeking the coherence which was represented by the experiment in Scotland. Community schools attempt to involve parents and other adult groups; further education colleges want to serve the "whole community"; polytechnics and colleges of higher education stress the importance of "a place to be", of the quality of life, and not merely the content of the curriculum.

On the other hand, it is hard to ignore the growing sense of alienation of many school and college students. While a sense of non-involvement and isolation may be most profound in the ethnic minorities and those living in the dislocated urban sprawl of large cities, it is undoubtedly felt among a much wider public.

The extensive bureaucratization of government at national and local level has contributed to a situation in which it is extremely difficult to pursue a comprehensive policy. The allocation of budgets and staff into such severely and artificially separated areas as education, social services, health and economic policy, effectively inhibits a co-ordinated approach. When acute problems arise, disenchantment with the "normal machinery" has led to the establishment of new national agencies with large powers, such as the Manpower Services Commission and the Training Services Agency.

However, short term and intense concentration on such issues as unemployment is no real alternative to the evolution of broadly based social policies that can be sustained over a longer period. Rallying calls such as the speech by the Prime Minister at Ruskin College in 1976 provide one possible starting point for national initiatives. Unfortunately such wide ranging speeches are followed by policy statements which inevitably reflect departmental interests and more attention away from the inter-relatedness of the problem.

Thus, it is difficult to develop a strategy for dealing with broad social policy in such fields as the relationship between education and work or the regeneration of communities. The presses may be heavy with warm words and worthy aspirations but action tends to be tardy and sectional. In higher education it is difficult for a university or college to develop an integrated policy towards its neighbourhood. It is faced with the problem of having to go the rounds of innumerable and frequently conflicting agencies.

The lack of a public policy which places education in the context of broad social and economic development makes it difficult to evaluate individual schemes. For example, most educators would regard the active participation of ethnic minorities in higher education as desirable. However, they need to know how much priority to accord such groups, how far they should engage in some form of affirmative action and above all they need to be informed about the over all strategy for more effective involvement of such groups in national life.

In terms of more general policy, some argue that we are moving rapidly towards an "equipay" society and towards a major reduction in working hours. If such changes are taking place, government policy on a very broad front is inevitably involved. Educators would need to reflect on the implications for the role of education and the consequent shifts in the relationship between education and work and between education and leisure.

Currently, many potentially valuable proposals from institutions may be regarded somewhat cynically by a general public that tends to see educators as just another expensive pressure group. Recent conversion to continuing education in some exalted circles, may be met with the charge that it merely reflects concern with demographic trends, rather than a conviction about the value of extended educational opportunity.

Further evidence for the need for a social policy review is provided by the attraction of national movements in Scotland as well as in other countries. The success of such movements relates, at least partly to the fact that politicians are at least articulating ideas about the country as a whole, trying to identify its unique features and attempting to see all the various concerns of government as serving the central theme of the nation's society.

The leaders of such movements may be dealing in grossly oversimplified concepts, but they are stressing the importance of personal identity and local participation. Such an approach is in contrast to the apparent remoteness of many existing bureaucratic procedures and the greasily attenuated relationship between electors in small town and legislators in some multi-national capital many hundreds of miles away.

It would be most unfortunate if the natural search for identity and significance was only answered by those who may ultimately want to divide countries.

Robert Owen, in his report on New Lanark made on May 1, 1820, talked grandly of exchanging poverty for wealth, ignorance for knowledge, anger for kindness and divisions for union. His simple articles of faith failed to prosper either in the Lanark or in New Harmony in the USA. However, the buildings at New Lanark stand as some reminder of a bold experiment that had the scope to excite his contemporaries and at least put his philosophy to the test of practice.

In the much more complicated times in which we live, it would be interesting to know if anyone has the nerve to engage in a similar experiment in the field of education and social policy that would provide contemporary theory to the test.